AUTHOR INDEX TO JOURNAL

The reference number in parentheses refers to the *monthly* issue of the *Journal*; the number following this is the page number. The letters, O and D, preceding reference numbers, indicate that the reference is from an Original Paper (O) or Discussion (D).

Volume 10, 1927

Albery, D. F. Dry grinding clay to 80-mesh, O (10) 804–806.
Arthur, E. P. Large clay shapes for the window glass industry, O (11) 850–59.

Baumann, H. N., Jr. The heat-balance study of ceramic kilns, O (11) 860–96.
Bennett, A. L. Draft comparison of cement and clay-gas flues, O (3) 220–23.
Bennett, G. W. See Keenen, F. G.
Binns, C. F. and Craig, E. A chromium red glaze, O (2) 73–74.
Binns, C. F. and Wardner, H. E. Colored bodies, O (2) 75–76.
Blair, M. W. Mechanical introduction of barium to clay bodies, O (6) 464–66.
Bleininger, A. V. Note on solubility of fired bodies in hot sulphuric acid, O (7) 535–37.
Bole, G. A. See Vachuska, E. J.
Bowman, J. R. Studies of the changes in the viscosity of clay slips and glaze suspensions on aging and by treatment with electrolytes, O (7) 508–16.

Casselman, E. J. A laboratory procedure for determining the drying characteristics of clays, O (1) 59–61.
Clark, H. W. See Hart, R. A.
Clark, R. J. A laboratory apparatus for the refining of Pacific northwest kaolin, O (2) 98–108.
Cohn, W. M. Discussion on "Specific heats and thermal reactions of clays, etc.," D (5) 34–37 52.
Cole, S. S. Effect of size of grain upon the properties of silica cement, O (8) 644–50; Variations in softening points of refractory materials due due to rate of heating, O (3) 180–84.
Cook, H. L. Note on the solubility of enamel frit in mill water, O (5) 339–43; Observations upon the effect of various electrolytes when added to enamel suspensions made with and without clay, O (5) 344–46.
Cooke, R. D. Enamel symposium. Making and firing of sheet steel ground coats. II, O (6) 454–56.
Craig, E. See Binns, C. F.

Eckert, T. S. and France, W. G. Adsorption at crystal faces. I. The growth and solution of single copper sulphate crystals in the presence of gelatin and dyes, O (8) 579–91.
Ellison, R. W. Solution of fused aluminous materials, O (6) 463.
English, S. and Turner, W. E. S. Relationship between chemical composition and the thermal expansion of glasses, O (8) 551–60.

Fellows, R. Enamel symposium. Emphasizing the control of methods used in the making and firing of ground coats for sheet steel, III, O (6) 456–59.
Fessler, A. H. and Kraner, H. M. Hydrogen-ion concentration and electrical conductivity of clay slips. I. Plant study, O (7) 501–507; II. Laboratory study, O (8) 592–97.
Fisk, H. G. See Watts, A. S.
France, W. G. See Eckert, T. S.
France, W. G. See Keenen, F. G.
French, M. and Harder, C. M. Low fire glazes using rutile, O (4) 268–69.
Fritz, E. H. See Kraner, H. M.
Fusselbaugh, R. R. Some effects of varying soda and boric oxides in ground coat enamels, O (4) 270–74.

Geller, R. F. Bureau of Standards investigation of feldspar, 2nd progress report, O (6) 411–34.
Geller, R. F. and Wadleigh, W. H. Some observations on the dehydration and firing behavior of clays, O (12) 925–55.
Goodrich, H. R. Spalling and loss in compressive strength of fire brick, O (10) 784–94.
Greaves-Walker, A. F. The elimination of lamination in clay bars, O (4) 309–15.

Hansen J. E. The effect of mill practice on the working properties and finish of vitreous enamels, O (7) 517–23.
Harder, C. M. See French, M. M.
Harrington, M. R. Form and color in American Indian pottery north of Mexico, O (7) 543–49.
Harrison, A. C. A preliminary study of the resistance to abrasion of ceramic glazes, its control and method of determination, O (2) 77–89.
Harrison, W. N. Vitreous enamel slips and their control, O (12) 970–94.
Harrison, W. N. and Hartshorn, T. D. A preliminary study of ceramic colors and their use in vitreous enamels, O (10) 747–60.
Harrison, W. N. and Wolfram, H. G. Effects of composition on the properties of ground coat enamels for sheet steel, O (3) 163–79.
Hart, R. A. and Clark, H. W. A study of flue lining, O (10) 795–803.
Hartford, F. M. See Robson, J. T.
Hartshorn, T. D. See Harrison, W. N.
Hearing, R. H. and Tefft, C. F. Items requiring consideration in underground clay mining, O (11) 919–23.
Heindl, R. A. IV. Progress report on investigation of sagger clays; their elasticity, transverse strength, and plastic flow at 1000°C, O (12) 995–1004.
Heindl, R. A. and Pendergast, W. L. III. Progress report on investigation of sagger clays; their elasticity and transverse strength at several temperatures, O (7) 524–34.
Hodson, F. The origin of bedded Pennsylvanian fire clays in the U.S., O (9) 721–46.
Howe, W. L. and Hudson, C. J. Studies in porosity and permeability characteristics of porous bodies, O (6) 443–48.
Hudson, C. J. See Howe, W. L.

Insley, H. The microstructure of earthen ware, O (5) 317–26; Quantitative microscopic analysis of commercial feldspar, O (9) 651–69.

Jaeger, F. G. Enamel symposium. Standardizing shop practices relative to making and application of steel ground coat enamels, I, O (6) 451–54.
Jennings, A. Enamel symposium. Method of control for application of ground coat enamel, IV, O (6) 459–61.
Johnson, B. M. and King, J. A. The use of silicon-carbide refractories in boiler furnaces, O (12) 1007–15.

Kauffman, O. Comparison of the expenses for operating three different types of kilns, O (6) 467.
Keenen, F. G., Bennett, G. W., and France, W. G. An automatic device for taking motion pictures at regular time intervals, O (6) 435–37.
Keenen, F. G. and France, W. G. Adsorption at crystal-solution interfaces. II. Individual macroscopic potassium alum crystals grown in the presence of gelatin and dyes, O (10) 821–27.

King, J. A. See Johnson, B. M.
King, R. M. See Watts, A. S.
Kirkpatrick, F. A. Drying problems of terra cotta, O (7) 469–86.
Knollman, H. J. The use of super-refractories as checker brick in gas manufacture, O (4) 299–308.
Knowles, H. B. See Lundell, G. E. F.
Kraner, H. M. and Fritz, E. H. A study of some factory processes, O (5) 357–66.
Kraner, H. M. See Fessler, A. H.
Krehbiel, J. F. See Orton, E., Jr.
Kuechler, A. H. See Wheeler, E. S.

Lai, C.-F. Sheet steel cooking ware white enamels economically suitable for use in China, O (3) 150–62.
Lenchner, T. A study of color and its application to ceramic art, O (7) 538–42.
Linton, R. Notes on firing in downdraft periodic kilns, O (7) 493–500.
Littleton, J. T., Jr. A method for measuring the softening temperature of glasses, O (4) 259–63.
Lorah, J. R. Uranium oxide colors and crystals in low temperature glaze combinations, O (10) 813–20.
Lundell, G. E. F. and Knowles, H. B. The analysis of soda-lime glass, O (11) 829–49.
Lyon, J. B. Kiln construction; an efficient round, downdraft kiln for firing refractories, O (3) 185–204.

MacGee, A. E. Reply to discussion by W. M. Cohn on "Specific Heats and thermal reactions of clays, etc.," O (5) 352–56; Some physical properties of chemical stoneware bodies, O (8) 569–78; Some thermal characteristics of clays, O (8) 561–68.
Malinovszky, A. Agreement of ground coat and enamel, O (4) 275–77; Microphotographic study of free quartz in feldspar, O (1) 23–29.
McDowell, S. J. The effect of various sodium silicates and other electrolytes on clay slips, O (4) 225–37
McDowell, S. J. See Navias, L.
McDowell, S. J. and Vachuska, E. J. The effect of calcined cyanite in porcelain bodies, O (1) 64–72.
McSwiney, D. J. Some observations on heat transfer in furnaces, O (1) 1–5.
McVay, T. N. The determination of mullite in a porcelain body, O (1) 62–63.
McVay, T. N. See Parmelee, C. W.

Navias, L. Impact and static transverse strength of wet process electrical porcelain, O (2) 90–97.
Navias, L. and McDowell, S. J. Discussion on on "The effect of calcined cyanite in porcelain bodies," D (5) 327–29.
Norton, F. H. A new high temperature furnace controller, O (6) 438–42; The thermal conductivity of some refractories, O (1) 30–52.

Odelberg, A. S. An electric tunnel kiln, O (3) 210–19.
Orth, H. S. Producer gas in connection with firing fire brick, O (9) 699–703.
Orton, E., Jr. and Krehbiel, J. F. A convenient platinum-wound resistance furnace, O (5) 373–87.
Ott, L. See Spencer, C. D.

Parmelee, C. W. and McVay, T. N. An investigation of some ball and china clays, O (8) 598–628.
Parmelee, C. W. and Westman, A. E. R. The effect of steam on the transverse strength of fireclay bricks, O (4) 292–98.
Parmelee, C. W. See Talwalkar, T. W.
Pendergast, W. L. See Heindl, R. A.
Poste, E. P. Enamel symposium, D (6) 462.

Rhead, F. H. Notes on shape construction, O (6) 389–401.
Richardson, W. D. The possibilities of the tunnel kiln for sewer pipe, O (9) 693–98.
Riddle, F. H. and Twells, R. Standardization and plant control as applied to body making, O (4) 281–91.
Robson, J. T. and Hartford, F. M. Flashing and other unique developments in connection with a modern tunnel kiln face brick plant, O (7) 487–92.
Ross, D. W. Design and service of tank blocks, O (10) 774–83; Nature and origin of refractory clays, O (9) 704–720.

Sample, W. L. The economic life of molds, O (4) 278–80.
Schramm, E. The effect of potash and soda feldspars in china body, O (12) 1005–1006.
Schramm, E. and Scripture, E. W., Jr. The particle size distribution of typical feldspars and flints, O (4) 264–67.
Scripture, E. W., Jr. The behavior of feldspar and flint with acids and bases, O (4) 238–42.
Scripture, E. W., Jr. See Schramm, E.
Sherman, R. A. and Taylor, E. Service factors governing the slagging of boiler refractories, O (8) 629–43.
Simpson, H. E. The heat required to fire ceramic bodies, O (11) 897–918.
Spencer, C. D. and Ott, L. The frosting of glass by mixtures containing hydrofluoric acid and alkali fluorides, O (6) 402–10.
Spurrier, H. An interesting color problem, O (5) 330–33; Some observations on terra cotta physics, O (9) 686–92.
Stephenson, H. H. A note on thixotropy in clays, O (11) 924.
Straight, H. R. Some new ideas in clay working, O (5) 367–72.

Tabata, K. On the causes of the surface devitrification of glasses, O (1) 6–22.
Talwalkar, T. W. and Parmelee, C. W. Measurement of plasticity, O (9) 670–685.
Taylor, E. See Sherman, R. A.
Taylor, W. A. Hydrogen-ion control in ceramics, O (4) 243–58.
Tefft, C. F. See Hearing, R. H.
Thompson, F. S. Some aspects of American glass tank furnace practice, O (12) 956–69.
Turk, R. H. See Wolfram, H. G.
Turner, W. E. S. See English, S.
Twells, R. See Riddle, F. H.

Vachuska, E. J. and Bole, G. A. Notes on cyanite and diaspor refractories, O (10) 761–73.
Vachuska, E. J. See McDowell, S. J.

Wadleigh, W. H. See Geller, R. F.
Walker, T. C. The effect of fine grinding on an indurated clay, O (6) 449–450.
Wardner, H. E. See Binns, C. F.
Watts, A. S. Some whiteware bodies developed at Ohio State University, O (3) 148–49.
Watt, A. S., King, R. M., and Fisk, H. G. A study of the effect of the substitution of calcined ball clay for nonplastic in porcelain and talc bodies, O (1) 53–58.
Westman, A. E. R. Statistical methods in ceramic research, O (3) 134–47.
Westman, A. E. R. See Parmelee, C. W.
Williams, W. S. New type of tunnel tank replaces day tank, O (3) 205–209.
Wheeler, E. S. and Kuechler, A. H. A new mercury volumeter, O (10) 807–12; The properties of refractories in the metallurgy of zinc, I. Raw materials and body mixtures now in use, O (2) 109–31.
Wolfram, H. G. See Harrison, W. N.
Wolfram, H. G. and Turk, R. H. Some observations on the aging of enamels, O (5) 334–38.

SUBJECT INDEX TO JOURNAL

Abraded surfaces, theory of fortification of, (6) 402.
Abrasion of ceramic glazes, study of resistance to, control of; methods of determination, (2) 77.
resistance to, of firebrick silicon carbide (recrystallized), silicon carbide (bonded), fused alumina (bonded), chrome, bauxite, zirconia, (12) 1009.
Absorption, effect of fine grinding on, (6) 449.
Acid etching of glass by mixtures containing HF and alkali fluorides, protection theory of acid frosting, progress of etching studied, theory fortification of abraded surfaces proposed, (6) 402.
Acid, resistance of enameled ware to, (3) 150.
Adsorption at crystal faces, (8) 579.
at crystal-solution interfaces, II; individual potassium alum crystals grown in presence of gelatin and dyes, (10) 821.
test on some ball and china clays, (8) 598.
Aging of enamel slips, (5) 334.
of enamel slips, effect of, on consistency, yield value, mobility, (12) 975.
of glaze suspensions, clay slips, (7) 508.
Air classifier and Hardinge mill; use of in grinding terra cotta clay to 80-mesh, advantages of finely-ground clay and use of air separation described, (10) 804.
Air cooling of refractories for boiler furnaces, use of water cooling, air cooling, preheated air, (12) 1012.
Air elutriation of feldspars, investigated at Bureau of Standards, (6) 411.
Air-separation method for clays; dry grinding clay to 80-mesh, description of 2 installations for grinding terra cotta clay; advantages of finely-ground clay; use of air separation, (10) 804.
Air evacuation of terra cotta bodies, (5) 367.
Alkali, effect of, on clay slips, (4) 225.
used in clay washing, (2) 98.
Alkalis, determination of, in soda-lime glass; methods at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
Alum, potassium, crystals, grown in presence of gelatin and dyes, study of adsorption at crystal-solution interfaces, (10) 821.
Alumina brick, fused, thermal conductivity of, (1) 30.
Alumina, calcined, used in enamels, (3) 150.
Alumina, determination of, in soda-lime glass; methods at Bureau of Standards; those recommended for routine work, (11) 829.
fused (bonded), thermal conductivity of; fusion point, composition, porosity, apparent density, resistance to abrasion, resistance to spalling, (12) 1009.
Aluminous abrasives, permeability and porosity of; methods of determination; effect of grit size of grain on permeability; effect of bond content on, (6) 443.
Aluminous materials, solution of fused, for chemical analysis method, (6) 463.
American Indian pottery, form and color in, (7) 543.
Analysis, microscopic, of commercial feldspar, quantitative, (9) 651.
Apparatus for refining kaolin on laboratory scale, (2) 98.
Arsenic, determination of, in soda-lime glass, methods used at Bureau of Standards and those recommended for routine work, (11) 829.
quinquivalent, determination of, in soda-lime glass; methods at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
trivalent, determination of, in soda-lime glass; methods at Bureau of Standards; those recommended for routine work, accuracy, (11) 829.
Art, color and application to ceramic, 3 dimensions, 2 existing color theories; proper application of colors, (7) 538
Art engineer and craftsman, difference between, (6) 389.
Auger lamination and its elimination, (4) 309.
Automatic device for taking motion pictures at regular time intervals, (6) 435.

Ball clays, physical properties of; specific gravity, porosity, modulus of rupture of, microscopic examination of, color, firing behavior, adsorption test, deflocculation test, 13 clays investigated, (8) 598.
Barium carbonate, methods of introducing to clay bodies to reduce scumming, (6) 464.
Barium tanks, use of, in face brick plant, (7) 487.
Bauxite, thermal conductivity of, fusion point, composition, porosity, apparent density, resistance to abrasion, and spalling, (12) 1009.
Bedford shale, some observations on dehydration and firing of; method and equipment used in studying drying and firing characteristics of clay; values obtained during a 30-hour water-smoking test in graphical form, (12) 937.
Bibliography on enamels and opacifiers, (3) 150.
on origin of fire clays, (9) 721.
on thermal conductivity of refractories, (1) 30.
Bismarck brown, effect of, on growth of potassium alum crystals, adsorption at crystal-solution interfaces, (10) 821.
Blistering, cause of, in enamels, (4) 271.
Blocks, tank, design and service of, effect of, on life of tank, (10) 774.
Bodies, colored ceramic, and glazes to fit, formulas for bodies and glazes, (2) 75.
porcelain and talc, effect of substitution of calcined ball clay for nonplastic in, physical properties of, (1) 53.
whiteware, developed at Ohio State Univ., (3) 148.
Body making, plant control as applied to, (4) 281.
Boiler-furnace refractories, service factors governing slagging of, (8) 629.
Boiler furnaces, use of silicon-carbide refractories in; advantages and disadvantages over fire clay refractories; physical and chemical properties of different types of refractories given, water cooling and use of preheated air, (12) 1007.
Borax, effect of varying concentration on consistency of enamel slips, (12) 975.
Boric oxide effect of, on resistance to mechanical and thermal shock of ground coats on enamels, (3) 163.
effect of varying, in ground-coat enamels, (4) 271.
Brick, checker, use of super-refractories as, in gas manufacture, (4) 299.
fireclay, effect of steam on transverse strength of, (4) 292.
insulating; thermal conductivity of, (1) 30.
Brick plant, face, design of, tunnel kiln, drier, barium tank, (7) 487.
Buffer action explained, (4) 243.
Bureau of Standards investigation of feldspar, 2nd progress report; purpose; sieve and chemical analyses; softening point; true specific gravity, (6) 411.
methods for chemical analysis of soda-lime glass; recommended methods for routine work; results on standard sample No. 80; accuracy, (11) 829.

Calcined alumina used in enamels, (3) 150.
Calcined ball clay, use of, in talc and porcelain bodies, physical properties, (1) 53.
Calcined cyanite in porcelain bodies, physical properties of, (1) 62.
Calculation of amount of free quartz in feldspar, (1) 21.
Calculations, statistical and exact methods of ceramic research, (3) 133.
Carbon deposits in checker brick, causes of, (4) 299.
Carbofrax used as checker brick in gas manufacture, (4) 299.
Carbon dioxide, determination of, in flue gases by use of thermal conductivity method, (11) 860.
Casting slips, effect of p_H on flowability of, (4) 225.
Cement, silica, effect of size of grain on properties of, softening point, screen analysis, rate of setting, (8) 644.

Ceramic art, color and application, 3 dimensions of; 2 existing color theories; proper application of colors, (7) 538.
Ceramic artists, development of course for training of, (6) 389.
Ceramic bodies, heat required to fire, interval specific heat of 23 refractory clays, kiln efficiencies calculated, (11) 897.
Ceramic colors, study of; use in vitreous enamels; methods of applying colored enamels, effect of enamel composition on color; batch formulas given, (10) 747.
Ceramic kilns, heat-balance of; Hoffman continuous coal-fired kiln; temperature-gradient curves and other data; thermal efficiency calculated, (11) 860.
Ceramic research, statistical and exact methods of, (3) 133.
Charpy type of impact testing machine, (2) 90.
Checker brick, use of super-refractory as, in gas manufacture, (4) 299.
Chemical analyses of clays used in manufacture of refractories used in the metallurgy of zinc, (2) 109.
of typical feldspars; Bureau of Standards investigation of feldspars, high soda and high potash feldspars, (6) 411.
Chemical analysis of feldspars, (1) 21.
of fused aluminous materials, method of solution, (6) 463.
of soda-lime glass, methods of, Bureau of Standards; recommended methods for routine work; results on standard sample No. 80; accuracy, (11) 829.
Chemical composition, effect of on surface devitrification of glasses, (1) 6.
of glasses, relation between thermal expansion and, between 25 to 90°C; new factors for oxides proposed, (8) 551.
of glazes, effect of, on resistance to abrasion, (2) 77.
and radiating power of flames in glass furnaces, (1) 1.
Chemical porcelain bodies, physical properties of, (1) 53.
Chemical porcelain, composition of, (3) 148.
Chemical stoneware bodies, physical properties of, crushing, impact and transverse strength, thermal expansion, resistance to heat shock, elasticity, (8) 569.
China bodies developed at Ohio State Univ., (3) 148.
China body, effect of soda and potash feldspars on total linear shrinkage, absorption and bulk specific gravity, (12) 1006.
China clays, physical properties of, specific gravity, porosity, modulus of rupture, microscopic examination, color, firing behavior, adsorption test, deflocculation test, (8) 598.
China, development of mullite in body and at body-glaze contact, (5) 317.
sheet-steel cooking ware white enamels suitable for use in, (3) 150.
China ware, comparison of resistance to abrasion of, foreign and domestic, (2) 77.
Chlorine, determination of, in soda-lime glass; methods at Bureau of Standards; those recommended for routine work, (11) 829.
Chrome brick, thermal conductivity of, 100–1400°C, (1) 30.
Chrome, thermal conductivity of, fusion point, composition, porosity, apparent density, resistance to abrasion, resistance to spalling, (12) 1009.
Chromium, qualitative test for, on terra cotta glaze, (5) 330.
Chromium red glaze maturing at cone 08, (2) 73.
Circulation and heat transfer in glass furnaces, (1) 1.
Classifier used in refining kaolin, (2) 98.
Clay bars, lamination in, elimination of, (4) 309.
Clay, dry grinding to 80-mesh; description of 2 installations for grinding terra cotta clay; advantages of finely-ground clay, use of air separation, (10) 804.
Clay mining, underground; advantages and disadvantages of 2 systems; details incident to mining, (11) 919.
Clay plasticity; measurement; unit of plasticity defined; apparatus, (9) 670.
sagger, 4th progress report on investigation; elasticity, transverse strength, and plastic flow at 1000°C; pyrometric cone equivalent indication of relative plastic deflection at 1000°C, (12) 995.
Clay shapes for window-glass industry, service requirements for Lubbers, Colburn, and Fourcault window glass machine, (11) 850.
Clay slips, aging; effect of electrolytes on viscosity, (7) 508.
effect of p_H on flowability of, (4) 225.
hydrogen-ion concentration and conductivity of, use as a control method, (8) 592.
methods of control of, compared, p_H, viscosity, electrical conductivity, (7) 501.
Clay and soda-lime glass reaction of, experiments on study, (11) 850.
Clay washer used in refining kaolin, (2) 98.
Clay, water-smoking test of 12 clays; fire clays, shales, surface clays; of method and equipment in studying firing characteristics of, (12) 925.
Clay working, new ideas in (5) 367.
Clays, ball and china, physical properties; specific gravity, porosity, modulus of rupture of, microscopic examination of, color, firing behavior, adsorption test, deflocculation test, (8) 598.
fire, origin of bedded Pa., (9) 721.
a laboratory procedure for determining drying characteristics of, (1) 59.
observations on dehydration and firing of; a study of drying and firing characteristics of 12 clays; in laboratory tests shorter drying and firing time is required than in practice, (12) 925.
refractory, interval specific heats measured; method and apparatus described, 23 clays investigated; temperature range 20–1100°C, (11) 897.
refractory, origin of, (9) 704.
sagger, elasticity and transverse strength at several temperatures; apparatus described, (7) 524.
specific heat of, method, apparatus, calculations, measurements over range 20–1100°C, (8) 561.
specific heats and thermal reactions of; average specific heats between 20°C and 1400°C, (5) 347.
surface, and shales, interval specific heat of, (11) 897.
used in manufacture of zinc retorts; properties; chemical composition, (2) 109.
Coal ash, effect of composition of on slagging of boiler-furnace refractories, (8) 629.
Color and application to ceramic art; 3 dimensions of: hue, value, intensity, (7) 538.
of ball and china clays, (8) 598.
Color standards for p_H determinations, (4) 243.
Color and translucency of whiteware bodies; color by Pfund colorimeter; translucency Martens photometer, (6) 411.
Colored ceramic bodies, green, brown, red, yellow, blue, batch formulas for bodies and glazes, (2) 75.
Colored enamels, study of ceramic colors and use; methods of applying colored enamels, effect of enamel composition on color, batch formulas (10) 747.
Coloring stains, study of ceramic colors and use, methods of applying colored enamels; effect of enamel composition on color, batch formulas, (10) 747.
Colors, uranium oxide, and crystals in low-temperature glaze combinations; study of color and crystallization in some uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, alone and with addition of certain inorganic compounds, (10) 813.
Combustion in glass furnaces, (1) 1.

Composition, effect of, on properties of ground coat enamels for sheet steel; 3 refractory bases studied, (3) 163.
Conductivity, thermal, of refractory materials, (1) 30.
Cone-bowl classifier used in refining kaolin, (2) 98.
Cone fusion point of refractory materials, effect of rate of heating on, (3) 180.
Cone screen test for determining fineness of milled enamel, (7) 517.
Consistency of vitreous enamel slips; method and apparatus for laboratory control under plant conditions; consistency correlated with working properties of slips, (12) 970.
Construction of 30-foot, round, downdraft kiln, (3) 185.
Continuous clay-washing apparatus, (2) 98.
Control of vitreous enamel slips; method and apparatus for laboratory control under plant conditions; consistency correlated with working properties of slips, (12) 970.
Crystal growth, automatic device for taking motion pictures of, (6) 435.
on glass surfaces, (1) 6.
in presence of gelatin and dyes, (8) 579.
Crystal habit, effect of dyes and gelatin on; explained on basis of ionic structure of faces and presence of polar groups in dyes, (10) 821.
Crystals in low temperature glaze combinations containing uranium oxide; study of color and crystallization in some uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, alone and with addition of certain inorganic compounds, (10) 813.
potassium alum, grown in presence of gelatin and dyes, study of adsorption at crystal-solution interfaces, (10) 821.
Crazing, effect of various feldspars used in body and glaze on, (6) 411.
Cryolite, effect of, on tone of colored enamels, (10) 747.
Cullet, use of in glass tanks; should tanks be warmed empty or with cullet? what is depth and manner of distribution of cullet? questionnaire answered by 27 American firms, (12) 958.
Cyanite, calcined, effect of, in porcelain body, physical tests, coefficient of expansion, moduli of rupture, firing shrinkage, color, (1) 62.
-clay refractories, study of physical properties of, (10) 761.
and diaspor refractories; effect of cyanite on shrinkage of diaspor, diaspor-clay refractories, and cyanite-clay refractories investigated; physical properties studied, (10) 761.

Data on interval specific heats of 23 refractory clays over temperature-interval 20–1100°C, (11) 897.
Day tank, new type of tunnel tank replaces, in glass plant, (3) 205.
Debiteuse blocks for Fourcault process, method of making, requirements for, (11) 850.
Deflocculation of clay in purification process, (2) 98.
test on some ball and china clays, (8) 598.
Dehydration and firing behavior of 12 clays; fire clays, shales, surface clays; method and equipment used in studying drying and firing characteristics, (12) 925.
Design of electric tunnel kiln for biscuit, glost, and decorating firing, (3) 210.
of a 30-foot, round, downdraft kiln for firing refractories, (3) 185.
of tunnel tank to replace day tank in glass plant, (3) 205.
Devitrification of glasses; surface, cause of, modes of, (1) 6.
Diamel used as checker brick in gas manufacture, (4) 299.
Diamine Sky Blue, effect of, on growth of potassium alum crystals, adsorption at crystal-solution interfaces, (10) 821.
Diaspor and cyanite refractories; effect of cyanite on the shrinkage of diaspor; diaspor-clay and cyanite-clay refractories investigated; physical properties studied, (10) 761.
Die lamination and elimination, (4) 309.
Dinnerware shapes, (6) 389.
Downdraft kiln for firing refractories, construction of, (3) 185.
(periodic), firing of, factors entering into heat treatment of silica materials, (7) 493.
Draft, comparison of cement and clay, gas flues, (3) 220.
Drier, design of for face brick plant, (7) 487.
Driers, comparison of large steam-heated, with small units heated by natural gas in drying terra cotta, (7) 469.
Dry grinding clay to 80-mesh; 2 installations for grinding terra cotta clay; advantages of finely-ground clay; use of in air separation, (10) 804.
Drying characteristics of clays, a laboratory procedure for determining, method; equipment needed, (1) 59.
Drying and firing behavior of 12 clays; fire clays, shales, surface clays, method and equipment used in studying drying and firing characteristics, (12) 925.
Drying problems of terra cotta; comparison of large steam-heated driers with small units heated by natural gas; temperature and humidity schedules, (7) 469.
Dyes, effect of, on growth of potassium alum crystals; adsorption at crystal-solution interfaces, (10) 821.

Earthen ware, microstructure of, (5) 317.
Economy of plant processes, (5) 357.
Efficiency, thermal, of ceramic kilns calculated, heat-balance study of Hoffman continuous coal fired kiln, (11) 860.
Elasticity of chemical stoneware bodies, (8) 569.
moduli of a number of sagger clays over range of 20–1000°C, (12) 999.
and transverse strength of sagger clays at several temperatures, (7) 524.
Electric tunnel kiln, design, cost, power cost, (3) 210.
Electrical conductivity of clay slips, (8) 592.
of clay slips as control method, (7) 501.
Electrical migration of clay suspensions; apparatus for taking motion pictures of, (6) 435.
Electrical porcelain bodies developed at Ohio State Univ., (3) 148.
plant control of body of, (4) 281.
wet process, impact and transverse strength of, (2) 90.
Electrical resistivities of talc and porcelain bodies over range 500–900°C, (1) 53.
Electrolytes, effect of, on clay slips, (4) 225.
on enamel suspensions, (5) 344.
on p_H of, electrical conductivity of clay slips, (7) 501.
varying concentration on consistency of enamel slips, (12) 975.
on viscosity of clay slips and glaze suspensions, (7) 598.
Enamel frit, solubility of, in mill water, (5) 339.
Enamel slips, aging of, (5) 334.
Enamel suspensions, effect of electrolytes on, (5) 344.
Enamel symposium, function of manganese dioxide in ground coat enamels, sheet steel ground coats, control methods used in ground coats, (6) 451.
Enamel, vitreous, slips; control; method and apparatus for laboratory control of consistency of, under plant conditions; consistency correlated with working properties of slips, (12) 970.
Enamels, agreement of ground coat and, (4) 275.
ground coat, effect of varying soda and boric oxides in, (4) 271.
for sheet steel, ground coat, effect of composition of, on properties of, (3) 163.
for sheet steel suitable for use in China, (3) 150.
vitreous, effect of grinding on working properties of, (7) 517.
vitreous; study of ceramic colors and use; methods of applying colored enamels; effect of enamel composition on color; batch formulas given, (10) 747.

Etching of glass by mixtures containing hydrofluoric acid and alkali fluorides; protection theory of acid-frosting progress of etching; theory of fortification of abraded surfaces proposed, (6) 402.
Expansion, coefficient of, on bodies containing calcined cyanite, (1) 62.
of sagger clays correlated with other physical properties, (7) 524.
thermal of glasses; relation between chemical composition and, between 25 to 90°C, new expansion factors proposed, (8) 551.
Expansivity, influence of composition of enamels on, (3) 163.

Face brick plant design, tunnel kiln, barium tanks, drier, (7) 487.
Factory processes, raw material handling, power plant costs, (5) 357.
Feldspar, behavior of, with acids and bases, (4) 238.
commercial, quantitative microscopic analysis of, (9) 651.
content in ground coats on sheet steel, effect of, (3) 163.
effect of, on tone of colored enamels, (10) 747.
enamels, tested, (3) 150.
investigation by Bureau of Standards; scope, sieve analyses, chemical analyses, softening point, true specific gravity; physical tests on bodies in which feldspar is only variable component, (6) 411.
melts, mullite development in, (5) 327.
quartz in, a microphotographic study of, (1) 21.
Feldspars, particle size distribution of, (4) 264.
soda and potash, effect of in china body on total linear shrinkage, absorption, and bulk specific gravity, (12) 1006.
Ferric oxide, determination of, in soda lime glass; methods at Bureau of Standards; those recommended for routine work, (11) 829.
Fine grinding, effect of, on indurated clay, plasticity, tensile strength, shrinkage, absorption, and porosity, (6) 449.
Fineness of enamel, uniform, mill practice, (7) 517.
Fire brick, producer gas in connection with firing, (9) 699.
spalling and loss in compressive strength when fired to 1250 and 1350°C; fireclay brick from Pacific Northwest, (10) 784.
Fire clay, bricks, effect of steam on transverse strength of, (4) 292.
effect of zinc upon deformation value of, (2) 109.
interval specific heats of, (11) 897.
Fire clays, observations on dehydration and firing of; drying and firing characteristics of 12 clays; in laboratory tests shorter drying and firing time required than in practice, (12) 925.
origin of bedded Pa., (9) 721.
Fired bodies, progress of vitrification in; method of investigation, (7) 535.
Firing behavior of some ball and china clays, (8) 598.
of whiteware bodies in which feldspars are only variable, (6) 411.
Firing of ceramic glazes, effect of temperature of, on resistance to abrasion of, (2) 77.
in downdraft periodic kilns, factors entering into heat treatment of silicate materials, (7) 493.
and drying behavior of 12 clays; fire clays, shales, surface clays, method and equipment used in studying drying and firing characteristics, (12) 925.
Firing schedule for heating up glass tanks; questionnaire by 27 American firms, (12) 956.
Fishscaling, cause of, in enamels, (4) 271.
Flame, heat transfer, function of heat capacity of, (1) 1.
Flashing and other unique developments in connection with modern tunnel face brick plant, (7) 487.
Flint, behavior of with acids and bases, (4) 238.
Flint clay used in manufacture of zinc retorts, (2) 109.
Flint, effect on resistance to mechanical and thermal shock of ground coats on enamels, (3) 163.
particle-size distribution of, (4) 264.

Flocculation, relation between, and yield value o enamel slips, (12) 978.
Flue lining, various types investigated, properties, desired, recommendations made, (10) 795.
Flues draft comparison of cement and clay gas, (3) 220.
Fluorspar, effect on tone of colored enamels, (10) 747.
Fourcault window-glass machine, service requirements for special clay shapes for, (11) 850.
Fourier's equation of heat flow, (1) 30.
Frit, enamel, solubility of, in mill water, (5) 399.
Frits, grinding to various fineness, effect on yield value and mobility of enamel slips, (12) 976.
Fritted glaze, chromium red, maturing at cone 08, (2) 73.
Frosting of glass by mixtures containing hydrofluoric acid and alkali fluorides; protection theory of acid frosting, progress of etching studied, (6) 402.
Fuel consumption in downdraft periodic kilns, (7) 493.
Furnace controller, high temperature, automatic device for, (6) 438.
Furnace, design of, for measuring, thermal conductivity of refractories, (1) 30.
for measuring softening temperature of glasses, (4) 259.
platinum-wound for cone fusions, (5) 373.
Furnaces, boiler, use of silicon-carbide refractories in; advantages and disadvantages over fireclay refractories; physical and chemical properties of different types of refractories; water cooling and the use of preheated air, (12) 1007.
kiln types used in firing refractories, (3) 185.
observations on heat transfer in, (1) 1.
Fusion point determinations, platinum-wound furnace for, (5) 373.
Fusion point, of fire brick, silicon carbide (recrystallized), silicon carbide (bonded), fused alumina (bonded), chrome, bauxite, zirconia, (12) 1009.
of refractories; effect of rate of heating on, (3) 180.
of silica cements; effect of size of grain of cements on, (8) 644.

Gas analyses from cement and clay-gas flues, (3) 220.
Gas manufacture, use of super-refractories as checker brick in, (4) 299.
Gas, producer, in connection with firing fire brick, tunnel kiln installation, (9) 699.
Gases, molal specific heat of CO_2, SO_2, H_2O, over temperature range 0 to 200°C, (11) 860.
Gelatin, effect of, on growth of potassium alum crystals, adsorption at crystal-solution interfaces, (10) 821.
Glarimeter, Ingersol; testing resistance to abrasion of ceramic glazes, (2) 77.
Glass designs illustrated, (6) 389.
Glass, frosting of, by mixtures containing hydrofluoric acid and alkali fluorides, (6) 402.
Glass furnaces, some observations on heat transfer in, (1) 1.
Glass machines, window, clay shapes for; service requirements of, for Lubbers, Colburn, and Fourcault machines, (11) 850.
Glass pots, for window-glass industry, service requirements of special clay shapes for Lubbers, Colburn, and Fourcault window-glass machines, (11) 850.
Glass, soda-lime, chemical analysis, methods used by Bureau of Standards; recommended methods for routine work; results on standard sample No. 80; accuracy, (11) 829.
and clay reaction of, experiments on study of, (11) 850.
Glass tank blocks, design and service of, effect of, on life of tank, (10) 774.
Glass tank furnace practice, critical points in heating schedule, (12) 957.
depth and manner of distribution of cullet, (12) 958.
fuel used in heating up glass tanks, (12) 958.
information on features of glass-tank operation; 27 firms reply to questionnaire, (12) 956.
a regular schedule for heating up tanks, (12) 956

should tanks be warmed up empty or with cullet (12) 958.
suggestions for further research on subject, (12) 968.
time required for heating up glass tanks, (12) 956.
where are initial fires applied in heating up the cold furnace? (12) 958.
Glass tank, new type of tunnel tank replaces day tank in glass plant; design, construction, gas consumption, costs, (3) 205.
Glass, thermal expansion of, relation between chemical composition and, between 25 to 90°C; new factors for oxides proposed, (8) 551.
Glasses, softening temperature of, method of measurement, (4) 259.
surface devitrification of, causes of, (1) 6.
Glaze, chromium red, formula, (2) 73.
fit, effect of feldspar on relative; effect of type of feldspars used in body and glaze on glaze fit, (6) 411.
suspensions, effect of aging and electrolytes on, (7) 508.
terra cotta, pink discoloration developed on, (5) 330.
Glazes, colored, uranium oxide, and crystals in low temperature glaze combinations; study of color and crystallization in some uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, alone and with addition of certain inorganic compounds, (10) 813.
resistance to abrasion of, methods of testing, control of, (2) 77.
using rutile, low fire, composition of, (4) 268.
Glost fire, effect of, on resistance to abrasion of ceramic glazes, (2) 77.
Graphite resistor furnace for laboratory use, (5) 373.
Grinding, dry, clay to 80-mesh; 2 installations for grinding terra cotta clay, advantages of finely-ground clay; use of air separation, (10) 804.
fine, effect of on plasticity, tensile strength, porosity, absorption, shrinkage, (6) 449.
of vitreous enamels, effect of mill charge, (7) 517.
Grogs used in manufacture of zinc retorts, (2) 109.
Ground coat adherence, theory of, (6) 451.
Ground coat enamel slips, control of, method and apparatus for laboratory control of consistency of enamel slips under plant conditions; consistency correlated with working properties of slips, (12) 970.
Ground coat and enamels, agreement of, (4) 275.
enamels, effect of varying soda and boric oxides in, (4) 271.
enamels for sheet steel, effect of composition of on properties of, (3) 163.
for sheet steel, control in making and firing; control in application of ground coats, (6) 451.
Growth ratio of crystals, effect of Bismarck Brown and Diamine Sky Blue on, (10) 821.

Hardinge mill and air classifier; use of in grinding terra cotta clay to 80-mesh; advantages of finely-ground clay and use of air separation described, (10) 804.
Heat-balance of ceramic kilns; Hoffman continuous coal-fired kiln; temperature-gradient curves, etc., thermal efficiency calculated, (11) 860.
Heat distribution in downdraft kilns, effect of draft on, (7) 493.
in periodic round downdraft kiln for firing refractories, (3) 185.
Heat loss through pipe covering, (5) 357.
Heat required to fire ceramic bodies, interval-specific heat of 23 refractory clays; kiln efficiencies calculated, (11) 897.
specific heats, thermal reactions, method, apparatus, calculations, (8) 561.
Heat-shock, resistance to, of chemical stoneware bodies, (8) 569.
Heat transfer in furnaces; observations on phenomena in glass furnaces, (1) 1.
Heat-transfer properties of checker brick, factors affecting, (4) 299.
Heat in walls, lateral flow of, (1) 30.
Heating, rate of, effect of, on fusion point of refractories, (3) 180.
Heats, interval specific, of 23 refractory clays' method and apparatus described, (11) 897.
Hoffman kiln, heat-balance of; temperature gradient curves, etc., thermal efficiency calculated, (11) 860.
Hotel china bodies developed at Ohio State Univ., (3) 148.
Hotel china ware, resistance to abrasion of glazes of, (2) 77.
Hydrofluoric acid, etching of glass by mixtures of, and alkali fluorides, (6) 402.
Hydrogen-ion concentration of clay slips, (8) 592.
of clay slips, use as a control method, (7) 501.
effect of on casting slips, (4) 225.
of enamel slips, effect of, on yield value and mobility, (12) 978.
Hydrogen-ion control in ceramics, (4) 243.

Ignition, loss on, determination of, in soda-lime glass, methods used at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
Illinois shale, dehydration and firing of; method and equipment used in studying this type of clay; values obtained during a 30-hr. water-smoking test, (12) 950.
Impact strength of chemical stoneware bodies, (8) 569.
of electrical porcelain, types of apparatus used, (2) 90.
Impact tests on enamel ware, (3) 150.
on ground-coat enamels for sheet steel, (3) 163.
Indian pottery, form and color in, (7) 543.
Indiana paving brick shale, dehydration and firing of; method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 945.
Indicators used in p_H determination, (4) 243.
Ingersol glarimeter used in testing resistance to abrasion of ceramic glazes, (2) 77.
Insulating brick, thermal conductivity of, (1) 30.
Interval specific heats of 23 refractory clays, method and apparatus described, (11) 897.
Ionic structure of faces of crystal; explanation of effect of dyes and gelatin on growth ratios of potassium alum crystals, (10) 821.

Kaolin brick, thermal conductivity of, (1) 30.
Kaolin, refining of Pacific Northwest, on laboratory scale, (2) 98.
Kentucky shale, dehydration and firing of; method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hr. water-smoking test, (12) 944.
Kiln construction, efficient round, downdraft, for firing refractories, (3) 185.
Kiln, downdraft, facebrick, 30-foot round; heat-balance study of, (11) 860.
electric tunnel, design, cost, for biscuit, glost, and decorating firing, (3) 210.
efficiencies calculated using specific-heat data recently obtained, (11) 897.
efficiency, calculation of thermal, heat-balance study of Hoffman continuous coal-fired kiln, (11) 860.
Kiln, tunnel, design of for face brick plant, (7) 487.
for sewer pipe, Richardson compartment tunnel kiln, (9) 693.
Kilns, ceramic, heat-balance of; Hoffman continuous coal-fired kiln; temperature-gradient curves, etc., thermal efficiency calculated, (11) 860.
comparison of expenses of operating round, tunnel-car, and Mendheim gas kilns, (6) 467.
downdraft periodic, firing of, (7) 493.

Laboratory furnace for fusion point determinations, (5) 373.
Laboratory procedure for determining drying characteristics of clays, (1) 59.
Lamination in clay bars, elimination of, (4) 309.
Lead chromate, basic, glaze maturing at cone 08, (2) 73.
Lime, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, (11) 829.

Linings for flues, various types investigated, properties desired, recommendations made, (10) 795.
Load-deflection curves at 1000°C for sagger clays, (12) 997.
Load test of sagger clays at high temperatures, (12) 995.
Loss on ignition, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
Lubbers window-glass machine, service requirements for special clay shapes for, (11) 850.

Machine design for raw material handling, (5) 357.
Machine, impact, used in determining impact strength of electrical porcelain, (2) 90.
Magnesia, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, (11) 829.
Magnesite brick, thermal conductivity of from 100 to 1400°C, (1) 30.
Manganese dioxide, function of in ground coat enamels, gloss, hardness, expansion, color, adhesion, (6) 451.
Manganese oxide, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, (11) 829.
Manufacture of zinc retorts, properties of clays, grogs, and body mixtures used in, (2) 109.
Matt etching of glass surface by mixtures of hydrofluoric acid and alkali fluorides, (6) 402.
Matt glazes in some low temperature glaze compositions containing uranium, lead, sodium and boron, (10) 813.
using rutile, (4) 268.
Measurement of p_H, (4) 243.
Mechanical shock tests, on ground coat enamels, (3) 163.
Mendheim gas kilns, comparison of operating expenses with round kilns and tunnel-car kilns, (6) 467.
Mercury volumeter, a new, principle of operation, construction, manipulation, and calibration discussed; advantages and disadvantages listed, (10) 807.
Methods, research, statistical, and exact, (3) 133.
Microscopic analysis of commercial feldspar, quantitative, (9) 651.
Microscopic examination of ball and china clays, (8) 598.
Microstructure of earthen ware, (5) 317.
Middle Kittanning fire clay, dehydration and firing of; method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 939.
Mill water, solubility of enamel frit in, (5) 339.
Mineral analysis applied to fired bodies; tracing progress of vitrification; procedure, (7) 535.
Mineral constituents of commercial feldspars determined by microphotographic examination, (1) 21.
Mining, underground clay, items requiring consideration; advantages and disadvantages of 2 systems; details incident to mining, (11) 919.
Missouri fire clay, dehydration and firing of; method and equipment used in studying the drying and firing characteristics of this type of clay, values obtained during a 30-hour water-smoking test, (12) 942.
Mobility of enamel slips, (5) 334.
and set of enamel slips, relation between, (12) 988.
of vitreous enamel slips, method and apparatus for laboratory control; consistency of enamel slips under plant conditions; method correlated with working properties of slips, (12) 970.
Molds, economic life of, (4) 278.
Motion pictures at regular time intervals; automatic device for taking, (6) 435.
Mullite development in feldspar melts, discussion, K_2O–Al_2O_3–SiO_2 diagram proposed, (5) 327.
Mullite in earthenware bodies, (5) 317.
in porcelain body, determination of, HF, H_2SO_4, H_3PO_4, results not satisfactory, (1) 62.
Munsel color theory explained, (7) 538.

$Na_2O \cdot SiO_2$–SiO_2 system, (4) 225.

Ohio fire clay, dehydration and firing of; method and equipment used in studying the drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 941.
Ohio paving brick shale, dehydration and firing of; method and equipment used in studying the drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 941.
Ohio State Univ., white ware bodies developed at, (3) 148.
Ohio surface clay, dehydration and firing of, method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 947.
Opacifiers in enamels, sodium antimonate and calcined alumina zirconium oxide, (3) 150.
Operation of electric-tunnel kiln, (3) 210.
Origin of bedded Pennsylvania fire clays, (9) 721.
of refractory clays, (9) 704.

Pacific Northwest kaolin, refining of, (2) 98.
Particle-size distribution of feldspars and flints, (4) 264.
Pendulum impact testing machine used in testing electrical porcelain, (2) 90.
Pennsylvania fire brick, thermal conductivity of 100 to 1400°C, (1) 30.
Pennsylvania fire clay, dehydration and firing of; method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 948.
origin of, (9) 721.
Pennsylvania shale, dehydration and firing of, method and equipment used in studying drying and firing characteristics of this type of clay; values obtained during a 30-hour water-smoking test, (12) 949.
Periodic kiln for firing of refractories, (3) 185.
Permeability and porosity characteristics of porous bodies, definitions, methods of determining permeability varied by selection of grit size of grain, (6) 443.
Pile driver type of impact-testing machine used in testing electrical porcelain, (2) 90.
p_H of clay slips as control method compared with viscosity, (7) 501.
control in ceramics, (4) 243.
effect of on flowability of clay slips, (4) 225.
effect of on setting of suspensions of flint and feldspar, (4) 238.
and electrical conductivity of clay slips, (8) 592.
Physical properties of ball and china clays, (8) 598.
of chemical stoneware bodies, crushing, impact and transverse strength, thermal expansion, resistance to heat shock, elasticity, (8) 569.
of clays, specific heats over range 20 to 1100°C; thermal reactions, (8) 561.
of glasses, relation between chemical composition and thermal expansion, range 25 to 90°C, new factors for oxides proposed, (8) 551.
of porcelain bodies containing calcined cyanite, (1) 62.
of refractories used in metallurgy of zinc, (2) 109.
Physical tests on enameled ware, impact, thermal shock, opacity, acid test, (3) 150.
Physico-chemical nature of enamel slip and influence upon consistency, (12) 977.
Plagioclase feldspar, estimation, in commercial feldspars, method, (9) 651.
Plant control as applied to body making, (4) 281.
Plant layout for terra cotta manufacture, (7) 469.
Plaster molds, economic life of, (4) 278.
Plastic flow and pyrometric cone equivalent value of a number of sagger clays, (12) 1001.
of sagger clays at high temperatures, (12) 995.

Plastic strength, effect of fine grinding on, (6) 449.
Plasticity of clays, measurement of, unit of plasticity defined, apparatus, (9) 670.
effect of fine grinding on, (6) 449.
Platinum-wound resistance furnace for cone fusion; construction, costs, operation, (5) 373.
Polar groups in dyes, effect of, on growth rates of crystals in solutions containing dyes and on the crystal habit, (10) 821.
Porcelain bodies, effect of substitution of calcined ball clay for nonplastic in, physical properties, (1) 53.
Porcelain body determination of amount of mullite in, HF, H_2SO_4, H_3PO_4 treatments, results not satisfactory, (1) 62.
effect of calcined cyanite in, physical properties of bodies, (1) 62.
Porcelain, electrical, impact transverse strength of, (2) 90.
electrical and statuary, composition of, (3) 148.
plant control of body making, (4) 281.
Porosity of ball and china clays, (8) 598.
effect of fine grinding on, (6) 449.
of fire brick, silicon carbide (recrystallized), silicon carbide (bonded), fused alumina (bonded), chrome, bauxite, zirconia, (12) 1009.
and permeability characteristics of porous bodies, definitions, methods, permeability varied by selection of grit size of grain, (6) 443.
relation of thermal conductivity to, (1) 30.
of sagger clays, (7) 524.
of semivitreous bodies in which feldspar is only variable component, (6) 411.
Potash feldspar, estimation, in commercial feldspars, method, (9) 651.
Potash and soda feldspars, effect of in china body on total linear shrinkage, absorption and bulk specific gravity, (12) 1006.
Potassium alum crystals, grown in presence of gelatin and dyes; study of adsorption at crystal-solution interfaces, (10) 821.
Potassium oxide, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, (11) 829.
Pottery, American Indian, form and color in, (7) 543.
Prang color theory, explained, (7) 538.
Producer gas in connection with firing fire brick, tunnel kiln, installation, (9) 699.
Pyrometric cone equivalent of number of sagger clays as an indication of relative plastic deflection at 1000°C, (12) 995.

Quartz, estimation of, in commercial feldspar, method, (9) 651.
in feldspar, microphotographic study of free, (1) 21.
Quenching test on saggers, (7) 524.

Radiation and luminosity of flames in glass furnaces, (1) 1.
Rate of heating, effect of, on fusion point of refractories, (3) 180.
Reactions, thermal, of clays, specific heats over range 20 to 1100°C, (8) 561.
Red glaze, chromium, maturing at cone 08, (2) 73.
Refining of Pacific Northwest kaolin, a laboratory apparatus for, continuous clay washing plant, (2) 98.
Refractories, boiler furnace, service factors governing slagging of, (8) 629.
for boiler furnaces, use of water cooling, air cooling, preheated air, (12) 1012.
cyanite and diaspor, effect of cyanite on the shrinkage of diaspor, diaspor-clay and cyanite-clay refractories investigated, physical properties studied, (10) 761.
glass tank, design and service of, effect of, on life of tank, (10) 774.
kiln, downdraft for firing of, (3) 185.
properties of, in metallurgy of zinc; raw materials and body mixtures now in use, (2) 109.
silicon-carbide, in boiler furnaces; use of, advantages and disadvantages over fireclay refractories; physical and chemical properties of different types of refractories given water cooling; use of preheated air, (12) 1007.
spalling and loss in compressive strength when fired to 1250 and 1350°C, fireclay brick from Pacific Northwest studied, (10) 784.
super, used as checker brick in gas manufacture, (4) 299.
thermal conductivity of, Pennsylvania and, Missouri fire brick, silica, chrome, magnesite, spinel, and zirconia brick, over range 100 to 1400°C, (1) 30.
Refractory bases studied in developing ground coats for enamels, (3) 163.
Refractory clays, origin of, (9) 704.
Refractory ratio for ground-coat enamels, (4) 275.
Research, ceramic, statistical and exact methods of, (3) 133.
Resistance to abrasion of ceramic glazes, (2) 77.
furnace, platinum-wound, for fusion point determinations, construction, cost, operation, (5) 373.
to impact of wet process electrical porcelain, (2) 90.
to rupture of frosted glass as function of condition of surface and system of stresses applied, (6) 402.
Richardson compartment tunnel kiln for sewer pipe, (9) 693.
Round kilns, comparison of operating expenses with Mendheim gas kilns and tunnel-car kilns, (6) 467.
Rupture, moduli of number of sagger clays over range of 20 to 1000°C, (12) 999.
modulus of some ball and china clays, (8) 598.
modulus of, of sagger clays, (7) 524.
resistance to, of frosted glass as function of condition of surface, (6) 402.
Rutile, low-fire glazes using, (4) 268.

Sagger clays, Bureau of Standards' investigation of, elasticity and transverse strength of at several temperatures; apparatus described, (7) 524.
4th progress report on investigation of; elasticity, transverse strength and plastic flow at 1000°C, pyrometric cone equivalent indication of relative plastic deflection at 1000°C, (12) 995.
Scum, elimination of, methods of introducing barium carbonate to clay bodies, (6) 464.
Secant modulus calculated from load-deflection data for number of sagger clays, formula for calculating, (12) 1003.
Selenium red stains for vitreous enamels; study of ceramic colors; use; methods of applying colored enamels; effect of enamel composition on color, batch formulas, (10) 747.
Setting of clay suspensions, effect of p_H on, (4) 225.
Setting up of enamel suspensions, (5) 344.
Sewer pipe, tunnel kiln for, Richardson compartment-tunnel kiln, (9) 693.
Shales, interval specific heats of, (11) 897.
notes on dehydration and firing of; drying and firing characteristics of 12 clays; in laboratory tests shorter drying and firing time required than in practice, (12) 925.
Shape construction, illustrations of glass designs, (6) 389.
Shapes, clay, for window-glass industry; service requirements of special clay shapes for Lubbers, Colburn, and Fourcault window machines, (11) 850.
Sheet steel cooking ware white enamels suitable for use in China, (3) 150.
Sheet steel, ground coat enamel for, control in making and firing, control in application of, (6) 451.
Shrinkage of clays, volume and linear, method of determination, (1) 59.
effect of fine grinding on, (6) 449.
Sieve analyses of feldspars, Bureau of Standards report, air elutriation, (6) 411.
Silica brick, thermal conductivity of, 100 to 1400°C, (1) 30.

Silica cement, effect of size of grain on properties of, softening point, screen analysis, rate of setting, (8) 644.
Silica, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, (11) 829.
effect of, on tone of colored enamels, (10) 747.
Silicon-carbide brick, thermal conductivity of, (1) 30.
Silicon-carbide refractories in boiler furnaces; use of; advantages and disadvantages over fireclay refractories; physical and chemical properties of different types of refractories given; water cooling and use of preheated air are discussed, (12) 1007.
Silicon carbide, thermal conductivity of, fusion point, composition, porosity, apparent density, resistance to abrasion, resistance to spalling, (12) 1009.
Size distribution, particle, of feldspars and flints, (4) 264.
Slagging of boiler-furnace refractories; effect of composition of ash on, (8) 629.
Slip-casting, note on thixotropy in clays; effect of shaking on liquefaction of coagulated sol, (11) 924.
Slips, effect of p_H on flowability of, (4) 225.
enamel, aging of, (5) 334.
enamel, determination of consistency, specific gravity, water content, weight per unit area, "set," (12) 983.
vitreous enamel; control; method and apparatus for laboratory control of consistency of enamel slips under plant conditions; consistency correlated with the working properties of slips, (12) 970.
Soda, effect of varying in ground-coat enamels, (4) 271.
Soda-lime glass, chemical analysis of, methods used by Bureau of Standards; recommended methods for routine work, results on standard sample No. 80 issued by Bureau of Standards; accuracy, (11) 829.
and clay, reaction of, experiments on study of, (11) 850.
Soda-lime silica glasses, relation between chemical composition and thermal expansion of, over range 25 to 90°C, (8) 551.
Soda and potash feldspars, effect of in china body on total linear shrinkage, absorption and bulk specific gravity, (12) 1006.
Sodium antimonate, effect of, on tone of colored enamels, (10) 747.
in enamels, (3) 150.
Sodium oxide, determination of, in soda-lime glass, methods used at Bureau of Standards; those recommended for routine work, (11) 829.
Sodium silicates, effect of various, and other electrolytes on clay slips; flowability tests, p_H values, rate of setting, (4) 225.
Softening point of sagger clays, (7) 524.
of silica cements, effect of size of grain on, (8) 644.
of typical feldspars investigated by Bureau of Standards, high soda and high potash feldspars, (6) 411.
Softening points of refractory materials, effect of rate of heating on, (3) 180.
Softening temperature of glasses, method of, (4) 259.
Solubility of enamel frit in mill water, (5) 399.
of fired bodies in hot sulphuric acid, tracing progress of vitrification, (7) 535.
Solution of crystals, mechanism of crystal growth and adsorption at crystal faces, (8) 579.
Spalling, resistance to, of fire brick, silicon carbide (recrystallized), silicon carbide (bonded), fused alumina (bonded) chrome, bauxite, zirconia, (12) 1009.
resistance to, of saggers, (7) 524.
Spalling test on fire brick, definition of, importance of, various methods in use; new method, (10) 784.
Spalling tests of zinc retort bodies, (2) 109.
Specific gravity, true, of crystalline feldspars, (6) 411.
Specific gravities of some ball and china clays, (8) 598.
Specific heat of clays, methods of measuring, (5) 347.
Specific heats of clays over range 20 to 1100°C; method, apparatus, calculations, thermal reactions, (8) 561.
interval, of 23 refractory clays, method and apparatus described, (11) 897.
Spinel brick, thermal conductivity of 100 to 1400°C, (1) 30.
Standardization and plant control as applied to body making, (4) 281.
Static transverse strength of wet process electrical porcelain, (2) 90.
Statistical methods in ceramic research; statistical, exact, and new methods of research, (3) 133.
Steam driers for terra cotta bodies, compared with small units heated by natural gas, (7) 469.
Stiff-mud clay bars, elimination of lamination in, (4) 309.
Stoneware bodies, chemical, physical properties of, transverse, impact and crushing strength of, thermal expansion, resistance to heat shock, elasticity, (8) 569.
Sulphur trioxide, determination of, in soda-lime glass, methods used at Bureau of Standards; those recommended for routine work, (11) 829.
Super-refractories as checker brick in gas manufacture, (4) 299.
Surface clays, interval specific heats of, (11) 897.
dehydration and firing of; study of drying and firing characteristics of 12 clays; in laboratory tests; shorter drying and firing time is required than in practice, (12) 925.
Surface contraction, important factor in surface devitrification of glasses, (1) 6.
Surface devitrification of glasses, causes of, explanation on causes of, of glasses on heating, (1) 6.
Surface tension, mode of action of, important factor in surface devitrification of glasses, (1) 6.
Suspensions of flint and feldspar, effect of p_H on, (4) 238.
System, $Na_2O \cdot SiO_2$–SiO_2, (4) 225.

Talc bodies, effect of substitution of calcined ball for nonplastic in, physical properties, (1) 53.
Talc, effect of addition of, to diaspor refractories, (10) 761.
Tank blocks, design and service of, effect of, on life of tank, (10) 774.
Tank, tunnel, new type replaces day tank; advantages, design, cost, gas consumption, working temperatures, (3) 205.
Temperature of feed water, effect of, in fuel saving, (5) 357.
Temperature-gradient curve for Hoffman continuous coal-fired kiln, study of heat-balance and thermal efficiency, (11) 860.
Temperature gradient in walls, (1) 30.
Temperature, high, furnace controller, automatic device for, (6) 438.
and humidity schedules in driers for terra cotta bodies, (7) 469.
Terra cotta clay, grinding, to pass 80-mesh; description of 2 installations, advantages of finely ground clay; use of air separation, (10) 804.
Terra cotta, drying problems of, comparison of large steam-heated driers with small units heated by natural gas, (7) 469.
glaze, pink discoloration developed on, (5) 330.
physics, apparatus for determining "over all" thermal expansion of, (9) 686.
Theory, statistical, applied to ceramic research, (3) 133.
Thermal conductivity, of fire brick, silicon carbide (recrystallized), silicon carbide (bonded), fused alumina (bonded), chrome, bauxite, zirconia, (12) 1009.
of refractories; chrome, silica, magnesite, kaolin, zirconia, spinel, method; temperature range 100–1400°C; bibliography of, (1) 30.
Thermal efficiency of ceramic kilns calculated, heat-balance study of Hoffman continuous coal-fired kiln, (11) 860.
of downdraft periodic kilns, (7) 493.

Thermal expansion of chemical stoneware bodies, (8) 569.
of glasses; relation between chemical composition and, between 25 to 90°C; new expansion factors for oxides proposed, (8) 551.
of terra cotta, "over all," (9) 686.
of whiteware bodies, type of feldspar, rate and temperature of firing are varied, (6) 411.
Thermal reaction of clays, (5) 347.
of clays, studied over 20 to 1100°C; apparatus, calculations, (8) 561.
Thermal shock, resistance of enameled ware to, (3) 150.
tests on ground coat enamels, (3) 163.
Thinning out of glaze suspensions and clay slips, (7) 508.
Thixotropy in clays, a note on, liquefaction of coagulated sol by shaking, (11) 924.
Thornburg glass pot, description of, method of making described, (11) 850.
Tin oxides, substitutes for, tested, (3) 150.
Titanium oxide, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
Translucency of whiteware bodies determined by means of Martens photometer, (6) 411.
Transverse strength of chemical stoneware bodies, (8) 569.
of fireclay bricks, effect of steam on, (4) 292.
of sagger clays at several temperatures; apparatus described, (7) 524.
of wet-process electrical porcelain, (2) 90.
Tunnel car kilns, comparison of operating expenses with round kilns and Mendheim gas kilns, (6) 467.
Tunnel kiln, electric, cost, design, (3) 210.
installation for firing fire brick using producer gas, (9) 699.
for sewer pipe, Richardson compartment tunnel kiln, (9) 693.
use of, in face brick plant, (7) 487.
Tunnel tank, new type replaces day tank in glass plant, (3) 205.

Underground clay mining, items requiring consideration, advantages and disadvantages of 2 systems presented; details incident to mining, (11) 919.
Uranium oxide and crystals in low-temperature glaze combinations; study of color and crystallization in some uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, both alone and with addition of certain inorganic compounds, (10) 813.

Variables, correlation involving a large number of, in ceramic research, (3) 133.
Viscosity of clay slips used in control work, (7) 501.
Vitreous bodies, study of effect of varying type of feldspar on physical properties of, (6) 411.
Vitreous china bodies, developed at Ohio State Univ., (3) 148.
Vitreous enamel slips and their control; method and apparatus for laboratory control of consistency of enamel slips under plant conditions; consistency correlated with the working properties of slips, (12) 970.
Vitreous enamels, effect of grinding on working properties of, (7) 517.
study of ceramic colors; use; methods of applying colored enamels; effect of enamel composition on color; batch formulas, (10) 747.
Vitrification, progress of, traced by solubility tests in hot sulphuric acid, (7) 535.
Volume changes of clays used in the manufacture of zinc retorts, (2) 109.
Volume drying shrinkage on some ball and china clays, (8) 598.

Water cooling of refractories for boiler furnaces; use of water cooling, air cooling, preheated air, (12) 1012.
Water, hygroscopic and chemically combined, removal of, from clays, fire clays, shales, and surface clays; method and equipment used in studying drying and firing characteristics of these clays, (12) 925.
Water of plasticity of some ball and china clays, (8) 598.
Water-smoking test of 12 clays, including fire clays, shales, surface clays; method and equipment used in studying drying and firing characteristics of these clays, (12) 925.
Wet-process electrical porcelain, impact and transverse strength of; types of impact machines; methods of testing, (2) 90.
Wetting terra cotta, contraction resulting from, measured, (9) 686.
White enamels for sheet steel cooking ware, (3) 150.
Whiteware bodies developed at Ohio State Univ., (3) 148.
effect of varying type of feldspar on physical properties of, (6) 411.
Window-glass machines, clay shapes for, service requirements of, for Lubbers, Colburn and Fourcault machines, (11) 850.
Wood, use of in firing ceramic kilns, study of heat-balance, (11) 860.

Yield value of enamel slips, (5) 334.
of vitreous enamel slips; method and apparatus for laboratory control of; consistency of enamel slips under plant conditions, consistency correlated with working properties of slips, (12) 970.
and weight per unit area of enamel slips, relation between, (12) 987.

Zinc, properties of refractories used in metallurgy of; effect of zinc on deformation value o clays, (2) 109.
Zinc oxide, effect of, in enamels, (3) 150.
effect of, on tone of colored enamels, (10) 747.
Zirconia brick, thermal conductivity of, 100 to 1400°C, (1) 30.
Zirconia, thermal conductivity of, fusion point, composition, porosity, apparent density, resistance to spalling, (12) 1009.
Zirconium oxide, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work; accuracy, (11) 829.
for use in enamels, (3) 150.

AUTHOR INDEX TO ABSTRACTS

The reference number in parentheses refers to the *monthly* issue of *Ceramic Abstracts*; the number following this is a page number. The letters A, B, P, or BR preceding reference numbers indicate that the abstract is Abstract (A), Book (B), Patent (P), or Book Review (BR).

Volume 6, 1927

Abbott, L. S. Fire-receiving wall, P (6) 222.
Abrey, R. H. Plastic compositions, P (11) 500.
A. C. Spark Plug Co. Tunnel kiln for firing ceramic ware, P (12) 610.
Acheson, E. G. Abrasive implement, P (1) 3.
Ackerman, G. Burning of plaster of Paris in rotary kiln, A (11) 499.
Ackermann, H. Suggestions for standardization of dimensions of arch brick, A (10) 449.
Adams, E. Q. General utility reading lens for burettes and thermometers, A (6) 247.
Adams, F. W. Effect of particle size on hydration of lime, A (7) 258.
Adams, I. E. Influence of character of fire in continuous-tank practice, A (4) 134; Some aspects of current plate glass practice, A (3) 99; Successful Pa. milk bottle plant, A (11) 507.
Adams, J. W. See Brandes, P. H.
Adams, W. W. Safety in the quarry industry, A (12) 627.
Adderson, J. G. Clay mining, A (9) 409.
Adler, H. H. Means for determining color combinations, P (8) 322.
Agde, G. and Krauze, H. F. Behavior of fluoride ingredients of glasses and enamels, I, A (9) 374.
Agerup, J. Magnesite cements, P (9) 372.
van Agt, F. P. G. A. J. and Onnes H. K. Thermal expansion of Jena glass, A (1) 11.
Ahlers, J. G. New era in concrete, A (3) 94.
Ahmed-Bey, E. Kütahia faience, A (9) 367.
Aktieselskapet Norsk Aluminium Co. Alumina and aluminates, P (10) 451.
Albery, D. F. Dry-grinding clay to 80-mesh, A (11) 532.
Aldington, J. N. See Siemens and English Electric Lamp Co., Ltd.
Alexander, J. E. Method of drying material, P (12) 628.
Alexander, M. W. Industrial management at helm of prosperity, A (9) 410.
Alexander, S. Art and Material, B (3) 93.
Allardice, T. B. Controlling unit for oil burners, P (12) 597; Oil burner, P (12) 597.
Alling, H. L. Potash-soda feldspars, A (3) 114.
Alling, H. L. and Valentine, W. G. Quantitative microscopic analysis, A (9) 402.
Allner, W. Combustion velocity and equilibria in combustion, A (10) 461.
Aluminum Co. of America. Refractory articles P (7) 291.
Ambronn, H. and Frey, A. Das Polarisations-Mikroskop, B (2) 85.
Anderson, E. Bond for elastic grinding wheels and method of applying, P (8) 317.
Anderson, F. Burning clay bricks in annular kilns, P (5) 176.
Anderson, M. S. and Mattson, S. Properties of colloidal soil material, A (12) 622.
Anderson, O. Feldspar, BR (1) 42, A (3) 115.
Andrews, L. Apparatus for elutriation or hydraulic classification of pigments, pottery slips, fullers' earth, abrasives, etc., P (4) 154; Elutriation, A (2) 70.
Angel, D. N. Ashlar-setting clamp, P (6) 228.
Arbogast, J. I. Method and apparatus for manufacturing glass, P (2) 60.
van Arkel, A. E. and de Boer, J. H. Process for dissolving mixture of hafnium and zirconium phosphates and for separating hafnium and zirconium, P (10) 480.
d'Arleux R. M. and Violette E. Tunnel kilns or ovens for baking pottery, etc., P (2) 73.
Armstrong, H. E. Essays on Art and Principles of Chemistry, B (8) 361.
Arnold, E. E. Process for manufacture of sodium bicarbonate and production of nitrogen, P(2) 85.
Arnold, J. Chinese porcelain since the Republic, A (12) 558.
Arrouet, M. Highly efficient continuous electrode furnace, A (7) 296.
Arthur, E. P. Large clay shapes for window-glass industry, A (12) 586; Lime for glass industry, A (9) 376; Lime in U. S. glass industry, A (10) 426.
Asada, H. Process of utilizing alunite or its waste as flux in manufacture of Portland cement, P (11) 502.
Ashton, F. W. and Wilson, R. Preparation and optical properties of calcium hydroxide, A (5) 190.
Ashton, F. W. See Hansen, W. C.
Atzler, E. Most favorable brick size, A (11) 518.
Aub, J. C., Fairhall, L. T., Minct, A. S., and Reznikoff, P. Lead Poisoning, B (9) 414.
Aubertin, A. Testing prisms and glass plates, A (1) 12.
Auerbach, R. Selenium and tellurium dispersoid solutions with varying particle size, A (10) 478.
Aufhauser, D. Fuel Combustion, B (10) 463.
Auger, M. Enameling metal articles, P (2) 52.
Auger, R. A. Enameling brass or like metal, P (7) 266.
Augustin, R. Question of firing silica brick, A (12) 590.
Austin, A. O. Bushing-insulator terminal, P (1) 31; Method and apparatus for testing insulators, P (1) 31; Process of assembling insulator parts, P (2) 69.
Automatic Bottle Machine Corporation, Ltd. See McNish, A.
Avery, C. L. Modern Swedish glass, A (11) 492; Princely gift of Renaissance Maiolica, A (10) 420; Renaissance Maiolica: Description of collection at Metropolitan Museum of Art, A (12) 557.
Avery, C. W. Machine and method for drawing glass, P (4) 143.
Avril, A. C. Source and origin of limestone deposits, A (5) 189.
Awberry, J. H. and Griffiths, E. Apparatus for determination of heat of evaporation of liquids of high boiling points, A (6) 241.
Awberry, J. H. See Griffiths, E.
Ayres, S. H. and Osborne, A. G. Temperatures in bottles after filling with hot catsup, A (12) 573.
Azbe, V. J. Industrial furnaces, A (12) 602; Recarbonization cause of contamination of lime in kilns and other studies, A (10) 422; Steam in limestone decomposition, A (6) 206, 209; Science and engineering in lime burning, A (9) 370, A (11) 497.

B. H. B. Efficiency of round porcelain glost kilns, A (8) 352; Preparation of saggers for firing porcelain, A (9) 387.
Babcock, H. D. See Ellerman, F.
Babille, M. See Granger, A.
Bach. Highly refractory materials, A (5) 180; Notes on silica material, A (8) 325.
Bachman, F. E. Process for recovery of titanic acid iron and magnesia from titaniferous ores, P (5) 194.
Backe, H. Technical clay analyses, A (5) 191.
Backstrom, H. See Benedicks, C.

Baddiley, J. See Brit. Dyestuffs Corp.
Bailey, E. G. How much excess air? A (1) 33.
Bailey, H. T. The need of a school of ceramic design in Ohio, A (7) 255.
Bailey, T. L. Cement manufacture in Britain, 1926, A (10) 427.
Bailleux, E. Analysis of fluorspar, A (9) 407; New method for complete analysis of fluorspar, A (5) 192.
Baillie, W. L. Durability of glasses containing zinc, A (3) 97.
Baily, T. F. Electric annealing hood, P (12) 581.
Bainter, M. Furnace arch, P (12) 608.
Baird, A. Pottery-molding machine, P (2) 69.
Baker, G. R., Prescott, W. E., and Gilderdale, C. W. Method and apparatus for grading solid materials, P (6) 233.
Baker, W. T., Jr. Method of and apparatus for feeding molten glass, P (12) 582.
Bales, C. E. Refractories for malleable cast-iron foundry, A (11) 523.
Baly, E. C. C. Glasslike synthetic resins, A (10) 484; Spectroscopy, B (8) 361.
Banco, R. Firing stoneware kilns with illuminating gas, A (11) 537.
Banerjea, S. B. Manganese and bauxite in India, A (1) 34.
Bangert. Meeting of German Society of Glass Technology, A (9) 410.
Bankert, F. H. Brick-pressing machine, P (1) 32.
Bannister, C. O. Iron and steel in 1926, A (6) 213.
Barbier, G. See Demolon, A.
Bardsley, C. E. Utilization of Blast-Furnace Slag in Highway Improvement, BR (11) 548.
Bardwell, D. C. See Porter, F.
Barker, W. M. Ball mill, P (10) 456.
Barnard, R. D. Electroplating of glass ware by copper hydrosol, A (12) 570.
Barnes-Thomas, A. Imitation marble, tiles, slabs, etc., especially for use for decorative purposes in buildings and other places, P (10) 428; Method of producing articles from compositions of matter, P (10) 427.
Barratt, E. G. Tile, P (12) 594.
Barry, E. J. Glass and machinery, ancient and modern, A (1) 13.
Barta, R. Ceramic industry in Czechoslovakia, A (12) 627; Report of Czechoslovakian (C–S) Ceramic Society, International Congress of Chemistry, Bucharest, June 20–26, 1925, A (1) 39, 41.
Bartelstone, L. Method of making laminated glass, P (2) 60.
Barth, H. Heat recovery for economic glass melting, A (7) 276; Recuperators or regenerators, A (8) 335.
Bartlett, E. E. Making blown-glass articles, P (5) 172.
Bartlett, G. W. Burner, P (12) 609.
Barton, W. H. Scientifically controlled lime kiln, A (6) 209.
Bartsch, O. Determination of softening temperature of refractory material, A (7) 286; Influence of molten glass on refractory materials, A (3) 106; Studies of pot solution, A (7) 289; Wetting adsorption; adsorption of deformable substances, A (10) 477.
Bassett, Z. D. Fuel oil in enamel and pottery industry, A (6) 235.
Bates, H. C. Glass wool as insulator for refrigeration purposes, A (1) 10.
Bates, H. C. See Littleton, J. T., Jr.
Bates, P. H. Silicates in Portland cement, A (4) 132.
Bates, W. H. Manufacturing refractories in India, A (8) 347.
Batson, R. G. C. and Hankins, G. A. Hardness testing, A (10) 455.
Bauer, E. N. See Larsen, B. M.
Baumann, H. N., Jr. Heat-balance study of ceramic kilns, A (12) 601.
Baxter, G. P. Thirty-third annual report of the Committee on Atomic Weights, A (8) 359.
Beardmore, F. and Boulton, W., Ltd. Machine for sifting potters' slip, powdered substances, etc., P (12) 600.
Beatty, J. M. See Tucker, O. M.
Bechgaard, P. Jaw or breaker plate for stone crushers, etc., P (12) 596.
Becke, F. Graphic representation of rock analyses, A (3) 119.
Becker, H. Use of fluorspar in cement manufacture, A (11), 499.
Becker, R. Plasticity of amorphous and crystalline solids, A (10) 472.
Beckmann. Research on hydration of dicalcium and tricalcium silicate, A (5) 166.
Beckmann, O. See Kühn, P.
Beecher, M. F. See Jeppson, G. N.
Behnisch, A. Heat economy in sand-lime brick industry, A (10) 443.
Behr, G. E., Jr. Abrasive sheet material, P (12) 544.
Behre, C. H., Jr. Slate in Northampton County, Pa., A (12) 615.
Belknap, E. H. Fuel-testing apparatus, P (12) 607.
Bellhouse, G. Trend of modern factory requirements, A (11) 545.
Belyankin, D. S. Refractive index diagram for potassium-sodium feldspars, A (7) 308.
Benedicks, C., Backstrom, H., and Sederholm, P. Anomalies in heat conduction in steel, A (2) 51.
Bennet, C. E. New capillary electrometer, A (6) 247.
Bennett A. L. Draft comparison of cement- and clay-gas flues, A (5) 174; Method of making flower-vase inserts, P (1) 15.
Bennett, A. N. C. Some vapor pressures and activities of aqueous solutions of sodium silicates, A (12) 619.
Bennett, G. W. See Keenen, F. G.
Bennion, F. and Clarke, J. B. Saggers, P (5) 183.
Bent, D. Cradles of the past, A (8) 319; The Mexican as expert craftsman, A (7) 253; Unusual accessories of tea service, A (12) 555.
Bentley, J. H. Rotary kiln, P (7) 264; Rotary kiln with air preheater, P (9) 372.
Benton, A. F. and Williams, T. L. Catalytic oxidation of CO in contact with quartz glass, A (2) 75.
Berdel. Kütahia faience, A (9) 367.
Berdel, E. From the whiteware industry, A (8) 352; Modern instruction in chemistry and ceramics, A (8) 363; White ware, A (10) 453.
Bergau, G. Cost estimating and cost records in firebrick industry, A (1) 21.
Berger, E. E. Brief analysis of function of steam in lime kiln, A (9) 370; Effect of steam on decomposition of limestone, A (7) 258.
Berger, E. See Moulin, A.
Berger, L. B. See Sherman, R. A.
Berger, M. Zircallite, new preventive against destruction of furnace linings, A (5) 182.
Berkey, C. P. James Furman Kemp, A (3) 115.
Berl, E. and Loblein, F. Contribution to Knowledge of Fused Aluminous Cements, B (11) 499.
Bernardi, A. Green compounds of cobalt, A (9) 407.
Berry, E. R. Clear fused quartz; uses and manufacture, A (12) 572.
Berry, E. R. and Devers, P. K. Method and apparatus for working quartz, P (12) 628.
Besbordow, M. A. Example of decomposition of fire brick in glass furnace, A (12) 569.
Bessho, T. and Ito, I. Method of making enameled sheet-iron ware without ground coat, P (11) 505.
Best-Maugard, A. Method of Creative Design, B (7) 257.
Biebel, H. M. Electric resistance furnace, P (10) 457.
Bienfait, J. L. Modern viewpoints in selection of refractories, A (1) 27.
Biggs, H. See Hyslop, J. F.
Bigot. Mineral paving blocks, artificial and natural materials, A (1) 17.
Binns, C. F. and Craig, E. Chromium red glaze, A (4) 127.
Binns, C. F. and Wardner, H. E. Colored bodies, A (4) 127.
Binyon, L. Catalog of George Eumorfopoulos Collection of Chinese Frescoes, B (8) 322.
Bischof, C. Les argiles refractaires, B (8) 349.

Bishop, F. C. Some experiments with salty coal, A (9) 383; Some experience with salty coal and brick corrosion, A (6) 227.
Bishop, H. Water essential to certain types of gardens, A (8) 319.
Bishop, H. B. Chemical treatment of glass, A (1) 12.
Black, H. M. Sheet glass, P (3) 103.
Blackshere, L. D. and Drake, J. L. Sheet-glass bending apparatus, P (3) 102.
Blair, J. C. Forming sheet glass, P (7) 279; Method and apparatus for forming sheet glass, P (11) 512.
Blair, M. W. Hidden and unexpected costs in manufacture of clay ware, A (4) 145; Mechanical introduction of barium to clay bodies, A (7) 282, A (8) 343.
Blakney, G. Continuous annealing of malleable iron, A (3) 113.
Blanc, L. Study of transformation observed during calcination of sesquioxides of iron, chromium, and aluminum, A (12) 618.
Bland, J. Screen, P (6) 232.
Bleecker, W. F. Glass composition, P (8) 338.
Bleininger, A. V. Note on solubility of fired bodies in hot sulphuric acid, A (8) 350; Sagger symposium, A (2) 64.
Blizard, J. See Bole, G. A.
Blumenberg, H. Jr. Process of mining insoluble boron compounds, P (10), 480.
Blumenfeld, J. Titanium oxide, P (10) 451.
Bock, L. Sulphate as refining material for alkali-lime glasses, A (8) 335.
Bodin. Review of experimental studies on ceramic continuous kilns, A (1) 32.
Bodin, V. Refractory mortars, A (5) 182.
Boelcke, E. R. C. Method of manufacturing electric insulators, P (10) 453.
de Boer, J. H. See van Arkel, A. E.
Bogue, R. H. Portland cement research, A (4) 131.
Bogue, R. H. See Hansen, W. C.
du Boistesselin, H. Carbonized clay: acid-resistant refractory, A (3) 107.
Bole, G. A., Blizard, J., Rice, W. E., Ogden, E. P., and Sherman, R. A. Problems in firing refractories, A (9) 395.
Bole, G. A. See Vachuska, E. J.
Bolomey, J. Note on aluminous or fused cement, A (4) 133.
Bolt, F. L. Systems of oil burning; possible application to potteries, A (9) 396; Systems of oil firing, A (3) 113.
Bolton, J. W. What causes common defects in castings, A (7) 265, A (9) 373.
Booth, C. F. and Logue, P. Process for removal of borax from alkali-metal nitrates, P (2) 85.
Booth, G. W. Brick-scoring apparatus, P (10) 444.
Booze, M. C. Article of sillimanite-bonded granular material and method of making, P (4) 151; Load test for fireclay refractories, A (1) 23; Shrinkage of fireclay refractories, A (9) 386, A (11) 525; Study of spalling test for fireclay brick, A (5) 178.
Borgardts, E. See Borgardts, H.
Borgardts, H. and E. Hydraulic or estrich gypsum for floors, A (11) 499.
Borton, E. J. Costs in decorating department, A (11) 492; Cost finding and plant management, A (9) 411; How cost accounting is applied, A (10) 484; Practical pottery cost accounting, A (7) 312.
Bosch-Reitz, S. C. Important loan of early Chinese pottery, A (5) 163; Two acquisitions of Chinese ceramics, A (7) 255.
Bossert, H. T. Peasant Art in Europe, B (5) 200.
Boswall, R. O. Mathematical theory of Michell ball viscosimeter: design, construction, and operation, A (9) 394.
Boudin, L. Process and apparatus for making sheet glass, P (7) 282.
Boulton, W., Ltd. See Beardmore, F.
Bourne, F. See Canning Pottery Co.
Bourne, W. and Hewitt, A. E. Ornamenting pottery, P (12) 559.
Bouzin, O. Rotary kiln with heat exchanger, P (9) 373.
Bowen, N. L. See Morey, G. W.
Bowes, E. A. See Martin, G.
Bowles, O. Present progress and future tendencies in lime industry, A (7) 257; Requirements of metallurgical limestone, A (9) 370, A (10) 422; Work of non-metallic mineral station of Bureau of Mines during 1926, A (4) 132.
Bowles, O. and Meyers, W. M. Quarry problems in lime industry, A (9) 413.
Bowman, E. L. Opening new channels for brick and tile, A (9) 381.
Bowman, J. R. Studies of changes in viscosity of clay slips; glaze suspensions on aging and by treatment with electrolytes, A (8) 350.
Boyd, D. K. Strength of brick, A (1) 18.
Boyer, M. W. See Haslam, R. T.
Boylston, H. M. Electric furnaces in iron and steel industry, A (3) 104; Open-hearth process, A (2) 66.
Brady, E. J. Specifications for lining and checker brick for water-gas manufacture, A (1) 21.
Brady, F. B. See Peattie, H. L.
Brady, F. L. Introduction to Building Science, B (10) 444.
Bragg, W. L. Imperfect crystallization of common things, A (6) 246; Progress in crystallography, A (7) 306.
Bragg, W. L. and West, J. Structure of certain silicates, A (9) 404.
Brandes, P. H. and Adams, J. W. Sectional grinding wheel, P (11) 490.
Branner, G. C. Expansion in Ark. clay industry, 1926 and 1927, A (12) 625
Brannigan, E. J. Removable furnace heating unit, P (10) 457.
Brass, A. Determination of polymorphous modifications of system silica in fired clay by X-ray method of Debye-Scherrer, A (12) 622.
Brass, W. Influence of preheating hot gas and secondary air on temperature of combustion and fuel consumption, A (12) 605.
Brauns, D. H. Thermoregulator, A (12) 595.
Bremond, P. Physico-chemical phenomena in ceramics, A (3) 119; Studies of firing and vitrification of porcelain and white ware by means of porosity measurement, A (3) 110; Study on porosity and vitrification of bodies during firing, A (1) 28.
Brenner, R. F. Heat-resisting glass, P (6) 220.
Breuner, B. Coloring materials for cement products, A (10) 423.
Bridge, W. G. and Pervier, W. A. Muffle furnace, P (12) 608.
Briggs, L. W. Experiences with refractories in furnace construction, A (11) 526.
Brintzinger, W. See Gutbier, A.
Briscoe, H. T. and Mathers, F. C. Plasticity of finishing limes, A (5) 166, A (7) 257.
Briscoe, H. V. A. Progress of inorganic chemistry, A (7) 305.
Briscoe, H. V. A. and Robinson, P. L. Volatility and dissociation of borax, A (1) 37.
Brit. Dyestuffs Corp., Baddiley, J., Shepherdson, A., and Davidson, A. Coloring cement or concrete, P (12) 566.
British Hartford-Fairmont Syndicate, Ltd., Annealing leers, P (11) 513; Glass manufacture; conveyers; furnaces, P (11), 513.
British Thomson-Houston Co., Ltd. Burners, P (12) 610; Glass manufacture, P (10) 441; Insulators, P (12) 628.
Britton, H. T. S. Electrometric study of precipitation of silicates, A (9) 406.
Brobst, G. R. Manufacturing phosphate by calcining process, A (1) 36.
Brockman, C. J. Fused electrolytes, historical sketch, A (10) 475.
Brokenshire, E. L. Fluorspar mining and markets, A (7) 301.
Brookby, H. E. Plastic cementitious material, P (7) 263.
Brown, B. Drilling holes in glass, A (8) 354.
Brown, C. Process for surfacing sheet material, P (2) 59.
Brown, D. Laminations, A (10) 454; Latest economics in quantity production in grinding clay, A (4) 145.

Brown, E. H. Ceramic development in Texas, A (5) 188.
Brown, F. G. W. Higher Mathematics for Students of Engineering and Science, B (2) 85.
Brown, J. Refractory properties of commonly used oxides, A (5) 177.
Brown, J. H. See Simon-Carves, Ltd.
Brown, R. Glass manufacture; polishing by heat, P (11) 514.
Browning. Story of willow-pattern plate, A (2) 48.
Brown-Miller, L. T. Preparation of optically clear selenium for use in index media, A (5) 190.
Brownlee, W. K. Convection currents and insulation, A (10) 448.
Buchattz, H. Development stage in testing of building material, A (9) 381.
Buckhurst, I. and Kaye, G. W. C. All-metal high-vacuum pump system, A (6) 231.
Buckingham, E. J. Sparking plug, P (12) 594.
Buckley, F. Cumberland glass houses, A (6) 214; Notes on glass houses of Stourbridge, A (10) 429; Old Nottingham glass houses, A (3) 97.
Buckley, H. and Grieveson, C. J. W. Porcelain-enameled steel reflectors, A (5) 200.
Buckley, W. European Glass, B (4) 128.
Budd, C. S. Glass-blowing machine, P (8) 338.
Budemann, W. German artistic glass, A (7) 256.
Budnikoff, P. P. Ceramic Technology, BR (9), 415; Hardening of plaster of Paris and question of existence of soluble anhydrite, A (11) 498; Production from raw clay of material stable toward water, A (1) 41; Reclaiming and decrease in crystallization of insoluble form of $CaSO_4 \cdot H_2O$, A (3) 94; Setting of dihydrates of calcium sulphate, A (11) 541.
Budnikoff, P. P and Nekritsch, N. System SiO_2–Al_2O_3, A (11) 528.
Buehler, H. A. Ball clays of Butler County, Mo., A (5) 188.
Bues, A. Production of supercement in rotary kilns, A (12) 565.
Buess, W. Rotary furnaces, P (12) 610.
Buffington, R. M. and Latimer, W. M. Measurement of coefficients of expansion at low temperatures: some thermodynamic applications of expansion data, A (3) 118.
Bugbee, L. W. Processes for making fused multifocal lenses, P (12) 578.
Bull, W. C. Shock-resisting glass, P (9) 380.
Bulle, G. Regenerator and burner construction of regenerative furnaces of iron industries; practicability of such practice in glass industry, A (3) 114.
Bunge, J. H. O. Apparatus for feeding molten glass, P (11) 510.
Burchartz, H. Method for testing building brick in compression, A (11) 518; Testing and properties of sand-lime brick, A (10) 443.
Burdett, W. C. Photo glass in Belgium, A (2) 54.
Bureau of Standards. Recrystallization of quartz, A (12) 616.
Bureau of Statistics (Canada). Cobalt, chromite, and antimony, A (12) 613.
Burgess, I. J. Cimabue's cartoons for stained glass windows, A (12) 557.
Burgess, M. L. Process of coloring glass ware, P (4) 129.
Burgess, P. S. and McGeorge, W. T. Zeolite formation in soils, A (12) 621.
Burr, M. S. See Gregory, J. C.
Burt, F. A. Soil Mineralogy, B (11), 543.
Burt, F. M. Application of fuels in enameling furnaces, A (6) 212; Coal, low-priced fuel for enamelers, A (6) 212; Enameling industry today, A (9) 373; Furnace and smelting developments, A (3) 95; Gas as fuel for enamelers, A (6) 213; Routing production through plant, A (9) 412; Twelve commercial enamel batches, A (4) 133.
Burton, E. J. Three methods of cost accounting, A (8) 361.
Burton, J. Chinese pottery, A (4) 127.
Buss, E. Data on properties of clay and kaolin required in purchasing these materials, A (10) 452.
Butler, A. J. Islamic Pottery, B (4) 128.
Butler, A. S. G. Substance of Architecture, B (3) 93.
Butler, J. B. Descriptive bibliography on oil: fluid flow and heat transfer in pipes, A (9) 412.
Butler, W. A. Waste heat as air for combustion in downdraft kilns, A (8) 357.
Butterworth, W. Ten years' retrospect, A (2) 86, A (3) 101, A (6) 214.
Buttner, M. Restricted rotary cement kiln, P (9) 373.
Butts, C. Geology and mineral resources of Equality-Shawneetown area, A (6) 237.
Buwalda, J. P. Geology of eastern Ore., A (12) 613.
Buzby, W. E. Glass drawing and apparatus therefor, P (6) 219.
Byrnes, A. M. Coöperative shop, its equipment and organization, A (3) 90.

C. P. Special ball mill, A (10) 455.
Caesar, G. Status of dry pressing, A (6) 249.
Caldwell, L. See Endres, H. A.
Calkins, E. E. Beauty: new business tool, A (11) 494.
Calkins, R. M. Modern gypsum products plant in Montana, A (5) 166.
Callendar, H. L. Recent experiments on properties of steam at high pressures, A (2) 84.
Calsow, G. Relation between kaolin and clays, A (12) 619.
Campbell, J. W. See Larsen, B. M.
Canfield, R. W. Apparatus for shaping glass ware, P (7) 279; Glassworking apparatus, P (2) 58; Method of making hollow glass ware, P (9) 380.
Canning Pottery Co. and Bourne, F. Pottery molds, P (10) 457.
Capsa, G. Report of Société chimique de Roumanie, A (1) 41.
Carborundum Co., Ltd. Abrasives, P (10) 419; Abrasive articles, P (11) 490.
de Carli, F. Anhydrous borates of silver, barium, and zinc, A (10) 473; Reactivity of manganese dioxide in solid state, A (9) 406.
Carman, J. See Strache, H.
Carpenter, A. H. and Huntley, P. C. Pouring device for glass furnaces, P (8) 339.
Carson, H. Y. Cement-lined water mains, A (10) 421.
Carson, W. W., Jr. Thermostatically-controlled valve mechanism, P (12) 598.
Carstens, C. W. Mineralogy of several calcium aluminates occurring in aluminum-cement clinker, A (7) 262.
Case, G. O. Cellular gypsum compounds, P (9) 372.
Casselman, E. J. Glimpses into some European plants, A (6) 250; Laboratory procedure for determining drying characteristics of clays, A (3) 120.
Casselman, E. J., Griffith, N., and Johnson, C. E. Apparatus for flattening sheet glass, P (11) 512.
Castella, B. Old Spain in a modern apartment, A (12) 555.
Catlin, M. B. Czechoslovakian tile plant, A (2) 68.
Cebulla, K. Artificial drying of brick, A (2) 72.
Cereghino, M. J. See Creighton, J. T.
Chamberlain, S. Chimney tops of Antibes, A (3) 108.
Chance Bros. and Co., Ltd., Geil, P. V. W., Gould, C. E., Hampton, W. M., and Martin, H. S. Ultra-violet ray absorbing glass, P (8) 341.
Chapman, V. J. Electric furnace, P (12) 609.
Chappell, E. L. See Speller, F. N.
Chassevent, L. Investigation of calcium sulphate, III, A (11) 540.
Chatagnier, M. Cement manufacture, P (12) 567.
Chemnitius, F. Manufacture of green gold, A (12) 557.
Chiera, E. Clay products in ancient Babylonia; special reference to pottery, A (3) 92.
Childe, H. L. See Faber, O.
Childe, V. G. Bronze age village in Hungary, A (12) 558.
Chiyevskii, N. P. Determination of refractory powers of clays from their water of constitution, A (1) 27.
Christensen, C. Insulator support, P (12) 594.
Christiansen, J. A. Constitution of boron compounds, A (10) 479.

Christie, A. G. Effect of radiant heat on water-cooled furnace walls, A (9) 382.
Christie, C. H. Glass-polishing apparatus, P (2) 60.
Christie, C. H. See Stilwell, R. O.
Christie, C. H. See Troutman, F. E.
Chrobak, L. Dependence of vapor pressure of stilbite on water content and temperature, A (10) 474.
Clare, R. L. Presidential address, A (5) 195.
Clark, E. C. Separator for bricks and method of piling same, P (11) 518.
Clark, G. L. Applied X-rays, B (5) 194.
Clark, H. F. Making sheet glass, P (1) 15; Sheet-glass apparatus, P (11) 512.
Clark, H. H. Gas-fired enameling furnaces: comparative results of intermittent, semi-muffle, and full-muffle types, A (1) 8.
Clark, H. W. See Hart, R. A.
Clark, J. H., Jr. Filter presses, standard types, A (11) 535.
Clark, L. E. See Ries, E. D.
Clark, R. J. Laboratory apparatus for refining of Pacific Northwest kaolin, A (4) 153.
Clarke, J. B. See Bennion, F.
Clarke, S. G. Vanadium and tungsten separation, A (8) 360.
Clifford, F. W. Care and custody of books, A (1) 40.
Cloke, J. G. Treating clay, P (11) 543.
Coad-Pryor, E. A. Economics of annealing process, A (9) 375.
Coad-Pryor, E. A. and Hurlburt, F. A. New British bottle leer and conveyer, A (2) 54.
Coats, H. P. Device for arc-welding easily oxidizable wires, A (4) 153.
Cobb, J. W. See Lander, C. H.
Cobb, J. W. See Wood, J. F. L.
Coblentz, W. W. Eye-protective glass, P (12) 579.
Cochran, A. D. Build up markets on your plant, A (10) 442.
Cochrane, S. S. Factory management, A (10) 482.
Coffe, G. Cause of white ring on edge of glasses melted by coal gas, A (12) 572.
Cohn, H. See Freundlich, H.
Cohn, W. M. Specific heat and heat tone of clays, etc., A (7) 298.
Cohn, W. M. and MacGee, A. E. Discussion on "Specific heats and thermal reaction of clays," A (7) 302.
Colby, E. A., Maeulen, F., and Van Allen, G. L. Muffle furnace, P (10) 463.
Colclough, T. P. Analysis of silicate slags, A (10) 458.
Cole, L. H. Sodium sulphate in glass industry, A (4) 137; Sodium sulphate of western Canada: occurrence, uses, and technology, A (3) 120.
Cole, L. H. and Eardley-Wilmont, V. L. Lithium minerals, A (5) 189.
Cole, S. S. Effect of size of grain upon properties of silica cement, A (9) 382; Requirements of refractories for manufactured-gas plants, A (3) 105, A (5) 177, A (6) 224; Variations in softening points of refractory materials due to rate of heating, A (5) 176.
Coleman, E. H. See Martin, G.
Collard, C. H. F. See Crosbie, S.
Collin, L. P. Andalusite, Nova Scotia, A (3) 115; Clayworking plants, Quebec, Nova Scotia and New Brunswick, A (3) 103; Scumming and efflorescence, causes and prevention, A (2) 61.
Collins, P. W. See Westbury, W.
Collis, E. L. Statistical characteristics of dust phthisis (pulmonary silicosis), A (5) 200.
Colvin, C. M. Oil burner, P (12) 609.
Comber, A. W. Magnesium oxychloride cements; control of components, A (10) 427; Position of magnesite industry, A (8) 348.
Comber, N. M. Anomalous flocculation of clay, A (10) 480.
Compagnie Generale de Construction de Fours. Tunnel kilns, P (10) 466.
Compton, W. H. Distribution of expense items in cost accounting, A (12) 625.
Connick, C. J. Stained glass windows, colored sunlight, A (7) 267.
de Connick, M. Utilization of solid fuels in small automatic fires up to fusion point of ash, A (10) 461.
Cook, H. L. Note on solubility of enamel frit in mill water, A (7) 264; Observations upon effect of various electrolytes when added to enamel suspensions made with and without clay, A (7) 264.
Cook, M. E. Vital phases of constructive work in clay, A (4) 127.
Cooke, A. F. Continuous weighing apparatus, P (10) 456.
Cooke, R. D. Bringing research up-to-date, A (10) 453.
Cooke, R. D. See Jaeger, F. G.
Coon, J. M. and Lewis, E. J. Some pottery china clays and granite from which they are derived, A (10) 466.
Cooper, G. S. Looking at universe through rose-colored glass ware, A (4) 134.
Cope, F. T. Electric furnace, P (6) 233.
Copping, H. Reducing costs by plant improvement, A (11) 517.
Corbett, G. H. Molded glass with raised relief, P (12) 584.
Corfield, H. V. See Vickers, A. E. J.
Corfman, C. L. Investment composition, P (10) 427.
Cornelius, C. O. Sir-o-Lowestoft, A (1) 4.
Cornwell V. O. and Moeller, A. Method and apparatus for shaping articles of glass, P (10) 438.
Correns, C. To determine so-called power of crystallization, A (2) 76.
Cotel, E. Construction of Siemens-Martin furnace, A (7) 288.
Couch, D. H. Rotary drier, P (12) 599.
Cousen, A. Glass in 1926, A (6) 217.
Cousen, A. and Turner, W. E. S. Some uses of commercial sillimanite in glass works, A (6) 223.
Coutant, J. G. Effect of direct heating surface on efficiency, A (5) 196.
Cowan, R. G. What is art? A (1) 4.
Craig, E. See Binns, C. F.
Craig, T. J. I. and Spence & Sons, Ltd., P. Fireproofing fibrous materials, A (3) 122.
Cramer, A. N. Apparatus for transferring glass articles, P (10) 439; Glass-blowing machine, P (1) 16; Glass-feeding mechanism, P (5) 172.
Cramer, E. Drying practice, A (7) 284.
Crawford, G. E. Kiln for glass melting and like purposes, P (6) 220.
Crawford, J. L. Tank block for glass furnaces, P (8) 339.
Crawford, R. M. Low temperature carbonization of coal, A (9) 398.
Creange, H. Art and industry of glass, A (5) 164; Quantity production in art industries, A (3) 91.
Creighton, J. T. and Cereghino, M. J. Refractories for oil-gas generators, A (1) 27.
Crespi, M. Absorption of gases by glass walls: IV, methyl chloride and oxygen, A (9) 379.
Crespi, M. and Moles, E. Adsorption of gases by glass walls: III, sulphur dioxide, A (11) 542.
Crimmel, J. Bellaire as glass center, A (4) 137.
Cristiani, A. W. Tile-fettling machine, P (4) 153.
Cronshaw, H. B. Notes on driers for clay products, A (3) 110.
Crosbie, S. and Collard, C. H. F. Muffle kilns (for ceramics etc.), P (2) 73.
Cross, J. F. Pottery molds, P (10) 457.
Crowe, P. L. Grinding and separating apparatus, P (10) 457.
Crowell, W. S. Physical chemistry of dental cements, A (12) 564.
Crowley, J. P. Drawing sheet glass, P (7) 279.
Crowther, E. W. Direct determination of distribution curves of particle size in suspensions, A (6) 246.
Cruikshank, J. W. Apparatus for grading sand and grinding glass, P (9) 394; Development of plate glass pot filling processes, A (5) 170; Method and apparatus for grinding glass, P (6) 219; Method and apparatus for surfacing sheet glass, P (12) 582; Method for grading and delivering sand to glass-grinding machines, P (11) 510; Sheet- and plate-glass industry makes rapid progress, A (7) 267, A (8) 328.

Crupi, F. J. Waterproof abrasive fabric, P (8) 317, P (12) 554.
Culbertson, A. L. Furnace and method of operating, P (10) 464.
Cullen, W. Sixth Congress of French Industrial Chemistry, A (1) 37.
Currelly, C. T. Royal Ontario Museum of Archaeology, A (8) 320.
Curren, J. F. Spraying cabinet, P (1) 10.
Curtis, T. S. Fire cone 28 mullite brick in tunnel kiln, A (1) 24; Grinding ball and process of making, P (11) 537; Nonslip floor tile, P (11) 534.
Cushwa, C. B. Drying tile, P (8) 343.

Dachnowsky, A. P. International Society of Study of Peatlands, A (12) 626.
Dafinger. Water permeability of roofing tile, A (10) 451.
Dairen Dolomite Kogyo Co., The. Method of manufacturing white cement from dolomite, P (11) 502.
Dale, A. J. Investigation of premature failure of combustion chamber material, A (6) 225; Science in pottery industry, A (5) 184; Testing and behavior of refractory material under stress at high temperatures, A (6) 226, A (12) 589; Testing of refractory material for resistance to slag corrosion and erosion, A (6) 226, A (10) 445.
Dale, A. J. See Green, A. T.
Dale, A. J. See Vickers, A. E. J.
Dalgas. Survey of the Royal Copenhagen Porcelain works, A (7) 255.
Damour, E. Elements and principles of industrial heating, A (10) 484.
Daniels, J. Notes on clay mining, A (9) 409.
Daniels, S., Zimmerman, A. C., and Watson, J. A. Coating aluminum or magnesium or their alloys with silicates, P (7) 266.
Danielson, R. R. Composition for and method of coating metal surfaces, P (12) 569.
Danner, E. Making sheet glass, P (12) 583; Method and apparatus for forming glass ware, P (7) 281; Method and apparatus for making reinforced sheet glass, P (3) 101.
Danner, P. Stucco and ceramic building material in present architecture, A (10) 451.
Dautrebande, J. Cement base refractory materials, A (6) 226; Special cements, A (10) 427.
Davey, N. Consistency of cement pastes, mortars, and concrete, A (3) 94.
Davidson, A. See Brit. Dyestuffs Corp.
Davidson, C. R. Coating mirror glass with silver; silvering large mirrors, A (7) 267.
Davidson, D. Manufacture of chrome green, A (12) 620.
Davidson, W. B. Gaseous fuel, A (2) 72.
Davis, A. H. Convection of heat in gases and liquids: I, Convection of heat and similitude, A (6) 243; II, Natural convective cooling of wires in gases, A (6) 243; III, Forced convective cooling of wires in gases, A (6) 243; IV, Natural convective cooling of viscous gases and liquids, A (6) 244; V, Some thermal conductivity data for liquids, A (6) 244; VI, Theory of forced convective cooling in viscous gases and liquids, A (6) 245; VII, Experimental study of forced convective cooling in viscous liquids, A (6) 245; Instrument for use in measuring convected heat, A (6) 242.
Davis, F. C. Support and backing for terra cotta or other facing bricks, P (12) 591.
Davis, H. G. See Gyss, E. E.
Davis, H. W. Uses of fluorspar, A (1) 36.
Davis, J. Glassware-shaping machine, P (12) 579.
Davis, J. See Lorenz, E. H.
Davis, R. P. M. Brick-making machine, P (8) 356.
Deb, S. Calcutta Pottery Works, A (6) 229.
Debrocq, A. A. Apparatus for drawing glass, P (12) 581.
Decker, W. C. Power losses in commercial glasses, A (7) 278.
Dehandschutter, R. Machine for blowing glass table ware, P (12) 582.
Demolon, A. Adsorption and mobilization of potassium ions in colloidal clays, A (10) 472; Clay colloids of soils, A (10) 470.
Demolon, A. and Barbier, G. Selective absorption of ions by colloidal clay, A (12) 619.
Demuth, W. Absorption test for electrical porcelain insulators, A (9) 392.
Denison, G. W. See Denison, L. L.
Denison, L. L. and G. W. Apparatus for producing brick, P (5) 176.
Dennis, L. M. Glass containing germanium, P (3) 102.
Dennis, L. M. and Laubengayer, A. W. Fused germanium dixoide and some germanium glasses, A (2) 55.
Department of Commerce and Industry. Process of opacifying glass by etching, P (11) 496.
DeRulle, C. Progrés de la Fonderie: Moulage et Fusion, B (3) 96.
Deutsche Gasgluhlicht-Auer-Ges. Titanium oxide, P (12) 624.
Devers, P. K. See Berry, E. R.
Dewhurst, H. Rapid bolometer by sputtering on thin films, A (2) 84.
Dey, B. B. See Krishnamurti, P.
Dhar, N. R. See Ghosh, S.
Diamond, G. L. B. Corrosion of silica retorts, A (12) 589.
Dickinson, W. W., Jr. Brick-kiln construction, P (7) 299.
Dieckhoff, H. Development of chimney construction, A (9) 413.
Diepschlag, E. Combustion temperatures and efficient heating in gas fired furnaces; value of industrial gas, A (7) 313.
von Dieterich, W. Efflorescence of bricks and walls, A (11) 516.
Dietzel, A. See Zschimmer, E.
Dillion, J. B. Freight rates do not limit quality, A (7) 283.
Dimand, M. S. Recent accessions in Near East collections, A (6) 205.
Dimbleby, V. Methods used in analysis of glasses, A (10) 430.
Dimbleby, V., English, S., Firth, E. M., Hodkin, F. W., and Turner, W. E. S. Transparent zirconia-containing glasses, A (9) 376.
Dimbleby, V. and Turner, W. E. S. Relationship between chemical composition and resistance of glasses to action of chemical reagents, A (3) 98.
Dinkler, W. See Grosse, W.
Dittlinger, H. Plastic lime hydrates by use of chemical reagents in slaking water, A (12) 561.
Doan, G. System aluminum-calcium-silicon, A (5) 192.
Doble, F. C. Apparatus for indicating voltage stress, P (12) 594; Apparatus for testing insulators, P (12) 594.
Dobrovski, F. Coating in earthenware works, A (10) 484.
Donachie, J. A. See Scott, R. G.
Donath, E. Composition and structure of fired bricks, A (5) 175.
Dorfner, J. Brown briquets for firing, A (2) 72; Contribution to improvement of saggers, A (7) 286.
Dorr Co. See Spicer, H. N.
Dougal, J. W. Facing or preservation of walls and other surfaces, P (10) 444.
Draeger, K. Aging phenomena of porcelain insulators, A (1) 29; High tension and highest tension insulators, A (9) 392.
Drake, J. L. Drawing sheet glass, P (10) 439; Draw-table rail, P (12) 578; Sheet-glass drawing apparatus, P (7) 279.
Drake, J. L. See Blackshere, L. D.
Dralle, R. Die Glasfabrikation, BR (1) 44.
Dressler, C. Continuous kiln and drier, P (7) 300.
Dressler, P. d'H. Reciprocating car kiln, P (10) 465; Tunnel-kiln heating means, P (4) 154.
Dubiel, H. Determination of silicic acid and fluorine in mixtures of fluorite, sand, and silicates A (3) 117.
Dubrisay, R. Action of heat on surface properties of kaolin, A (5) 193.

Dudding, B. P. and Singleton, W. Resistance of glass to chemical attack, A (3) 99.
Duffield, F. L. Manufacture of refractory bricks, etc., from dolomite or other material possessing plasticity at high temperatures, P (1) 28.
Dumas, G. Process for manufacture of fused cement and apparatus therefor, P (4) 133.
Dummler, K. Clinkers: Their Employment and Production, B (2) 63, B (10) 450.
Dumond, E. J. E. Process for purifying, enriching, or refining crude graphite, P (3) 107.
Dunlap, L. G. New type of hose mask for protection against metallurgic dusts and fumes, A (5) 200.
Dunn, J. S. Diffusion in solid solution, A (6) 246; Simple kinetic theory of viscosity, A (7) 308.
Dunn, W. N. German potash production, A (11) 542.
Dunwody, W. E. Factory management: the pivot man, his relation to industry, A (2) 85.
Duprasay. Absorptive power of kaolin for gases, A (3) 117.
Dupuy, A. O. Brickmaking machinery, P (7) 285.
Durand, V. Manufacture of glass tubes, or rods, etc., P (12) 583.
Durau, F. Adsorption of gases by glass and silver powders, A (1) 12.
Dussaud. The Glozel pottery finds, A (12) 558.
Dyckerhoff, W. See Hansen, W. C.

E. S. Glass pockets in regenerative pot furnaces, A (7) 276.
Eardley-Wilmont, V. L. Concrete improved by use of diatomite, A (6) 210; Garnet for abrasives, A (12) 553.
Eardley-Wilmont, V. L. See Cole, L. H.
Earle, G. and T. Making and Testing of Portland Cement and Concrete, B (4) 133.
Earnshaw, G. M. Chemical Lime Co.; new hydrating plant, A (10) 422.
Eaton, G. M. Method of and apparatus for making insulator, P (4) 153.
Eberlein, H. D. Delaware River bridge between Philadelphia and Camden, A (8) 318.
Ebner, Modern waste heat boiler developments, A (11) 537.
Eckdahl, W. P. Clay analysis for control purposes, A (12) 619.
Eckert, F. Peculiar case of color change and luminescence in glass, A (7) 277; Possibilities in development of glass as working material, A (8) 330; Thermal history and optical constants of glasses, A (1) 12; Thuringian glass, A (2) 54.
Eckert, T. S. and France, W. G. Adsorption at crystal faces, I, Growth and solution of single copper sulphate crystals in presence of gelatin and dyes, A (9) 400.
Edison Swan Electric Co., Ltd., and Percival, G. A. Frosted electric incandescent lamps, P (12) 584.
Editorial. Coöperation that counts, A (11) 544; Industries profit most which demand most from universities, A (11) 544.
Edwards, O. K. Firing "hogged fuel" in continuous chamber brick kiln, A (9) 398.
Edwards, R. S. Synthetic gypsum: recovery and uses, A (5) 166.
Eickworth, R. Oven, P (10) 464.
Eisenschitz, R. Gas-analysis apparatus, P (12) 596.
Eisfelder, H. and Peipmeyer, M. Etching method for estimation and structure of tin oxide in cassiderite, A (11) 540.
Eisler, C. Machine for making glass mounts, P (10) 438.
Eitel, W. Equilibria in systems of silica, alumina, lime, and soda, A (7) 303; Investigations on the system Al_2O_3–SiO_2, A (7) 304; Kaiser Wilhelm Institute for silicate research: aims for present and future, A (6) 249, A (8) 363.
Eckert, F. M. Production and composition of porcelain, P (1) 31.
Eklund, J. Rotary calciners for gypsum, A (12) 561.
Eldridge, A. A. See Vallance, R. H.
Eliseev, A. See Maksimenko, M. S.
Ellerman, F. and Babcock, H. D. Silvering of plate glass, A (4) 136.
Ellington, O. C. Wire screens: proposed British standard table, II, A (1) 31.
Ellis, B. A. See Fox, J. J.
Ellison, R. W. Solution of fused aluminous materials, A (7) 303.
Emery, W. Faults in alkaline slip casting, A (8) 351.
Endell, K. and Harr, R. Effect of oxide impurities upon physical properties of silica brick, A (5) 179; Influence of oxide admixtures on physical properties of silica brick, A (9) 387.
Endell, K. and Pfeiffer, E. Structure of silica brick used in coke ovens, A (5) 178.
Endres, H. A. and Caldwell, L. Siliceous composition of matter, P (3) 120.
Engel, E. W. See Hurd, C. B.
English, S., Firth, E. M., and Turner, W. E. S. Function of arsenic in potash-lead oxide-silica glasses, A (9) 376.
English, S. and Turner, W. E. S. Relationship between chemical composition and thermal expansion of glasses, A (9) 374.
English, S. See Dimbleby, V.
Erdmann, K. Molded magnesite articles, P (7) 263.
Erie Glass Co. Forming sheet glass, P (12) 583
Ernst, E. S. and W. A. Some changes taking place in rotary cement kiln, A (5) 167.
Ernst W. A. See Ernst, E. S.
Esson, A. G. D. Diatomaceous peat as refractory, A (12) 553.
Estermann, I. Measuring low temperatures, A (5) 190.
Evans, A. E. See Fox, J. H.
Evans, A. E. See Heichert, H. S.
Evans, A. E. See Rotheram, J.
Evans, B. S. Lead determination, A (8) 360.
Evans, E. Downdraft kilns, P (5) 187; Downdraft kilns for manufacture of bricks and pipes, P (2) 73.
Evans, G. S. Effect of purite on refractories, A (9) 387; Effect of refractories of alkalis used in refining metals, A (9) 387; Sodium carbonate compounds affect refractory linings, A (11) 522.
Evers, G. V. Brick or pottery kilns, P (2) 73.
Ewald, W. Apparatus for measuring turbidity of opalescent glass, A (7) 277; New strain tester for glass, A (7) 276; New strain viewer, A (7) 276.
Ewald, W. and Schonborn, H. Measurement and evaluation of light-scattering glasses, A (12) 576.
Eyer, P. Introduction to fluorine question in enamel frits, A (8) 327.
Ezoe, M. Improvement in tunnel kiln, P (11) 538; Insulator, P (11) 535.

Faber, O. and Childe, H. L. Concrete Yearbook, B (6) 210.
Fagan, J. T. and Malloy, J. J. Glass-working machine, P (5) 174.
Fagan, J. W. See West, F.
Fairchild, C. O. and Peters, M. F. Characteristics of pyrometric cones, A (1) 39.
Fairhall, L. T. See Aub, J. C.
Fallon, J. See Smallwood, A.
Farnsworth, M. Re-use of plaster of Paris molds, A (9) 368; X-ray study of limes having different plasticities, A (7) 258, A (11) 499.
Farrar, D. F. Grinding feldspar in Tenn., A (1) 34.
Faust, O. Surface tension and viscosity of aqueous solutions of potassium, sodium, lithium, thallium and barium hydroxides, and sodium carbonate solution, A (10) 479.
de Fazi, R. Silica-lime brick, A (4) 146.
Fehse, W. Tungsten-wound resistance furnaces for very high temperatures, A (12) 606.
Feldenheimer, W. Treatment of earthy minerals, P (6) 250.
Fellner and Zeigler, New system of cooling cement clinker, A (6) 207.
Fellows, R. See Jaeger, F. G.
Felsner, E. Corner and supplementary firing in glass furnaces, A (12) 604; Iron and its compounds as coloring agents for glass, A (4) 135, A (8) 334; Rational utilization of heat in glass industry, A (8) 333.

Feret. Franco-Belgian Assn. for Testing Materials, A (1) 5.
Ferguson, F. Talks to Glass Container people, A (7) 312.
Ferguson, J. See McBain, J. W.
Fermor, L. L. Composition of some Indian garnets, A (7) 253.
Ferngren, E. T. Drawing sheet glass, P (2) 58, P (3) 102, P (8) 341; Method and apparatus for producing sheet glass, P (8) 340; Method of producing pressed sheet glass, P (11) 511; Molten glass feeding mechanism, P (7) 281; Process and apparatus for drawing sheet glass, P (11) 511; Sheet-glass width-maintaining shield, P (10) 439.
Fessler, A. H. and Kraner, H. M. Hydrogen-ion concentration and electrical conductivity of clay slips, I. Plant study, A (8) 350; II. Laboratory study, A (9) 401.
Fessler, A. H. See Kraner, H. M.
Fibremo, Soc. Cooperative. Glaze for fibrous cement products, P (12) 569.
Fiechter, J. J. Buffing wheel, P (11) 489.
Fiek, G. See Sachs, G.
Fieldner, A. C. See Selvig, W. A.
Finch, A. Art and future of commerce; plea for closer relations, A (7) 256.
Fink, C. G. Recent advances in electrochemistry, A (5) 179.
Fink, G. J. See Holmes, M. E.
Finkelstein, A. Alumina, P (5) 183.
Finn, A. N. Annealing of glass, A (12) 571; Cobalt-blue glass with cerium oxide excludes actinic rays of light, A (1) 13.
Firth, E. M., Hodkin, F. W., Parkin, M., and Turner, W. E. S. Batch melting experiments with batch materials containing chemically-combined water, A (6) 213; Effect of moisture on melting, working, and other properties of potash-lead oxide-silica glass of English crystal type, A (3) 96.
Firth, E. M., Hodkin, F. W., and Turner, W. E. S. Function of arsenic in soda-lime-silica glass, II, A (10) 430; Pt. III, A (10) 431.
Firth, E. M. See Dimbleby, V.
Firth, E. M. See English, S.
Fischer, E. and Tepohl, W. Determination of soluble alkali in ground glass, A (7) 269.
Fischer, J. Dispersion of metals, A (10) 475.
Fischer, W. Practical application of system Na_2O–Al_2O_3–SiO_2, A (12) 620.
Fischer, W. See Newmann, B.
Fischer, W. See Wever, F.
Fisher, D. J. Geology and mineral resources of Joliet quadrangle, A (6) 238.
Fisher, G. W. See Jones, L. S.
Fisk, H. G. See Watts, A. S.
Fiske, G. M. Evolution of brick and brick making in the U. S., A (2) 61, A (8) 362, A (10) 442, A (11) 517.
Fitch, W. H. Application of recuperators to open-hearth furnaces, A (7) 289; Saving heat with recuperator, A (8) 353.
Fitzgerald, F. A. J. Application of recrystallized silicon carbide (in porcelain kilns), A (1) 26; Electric furnace, P (12) 608; Harper electric kiln, A (1) 32.
Fitzpatrick, A. S. Production of liquid fuels, A (3) 112.
Fleck, C. Photographic production of reliefs for glass and ceramic industries, A (7) 256.
Fleissner, H. Removal of iron from clays, bauxites, etc., P (2) 88; Removing iron from clay, kaolin, etc., P (9) 409.
Flershem, R. B. Organization controlling production, A (9) 412.
Flinders-Petrie, W. M. Story of glass in early ages, A (2) 54, A (3) 96.
Florentin. Franco-Belgian Assn. for Testing Materials, A (1) 5.
Flu, E. B. Pewabic pottery at Detroit, unique institution, A (4) 127.
Flugge, J. Testing of optical systems of Ronchi's interference methods, A (4) 158.
Foerster. Measurement of high temperature and improved electric filament pyrometer, A (1) 36.
Fontana, C. Identity of crystal structure of compounds of Fe_2S_4 and FeS, A (10) 473.
Ford, H. Mass production glass making for motor cars, A (9) 378.
Forderruther, K. Importance of good model for test sieves, A (9) 403.
Fosdick, M. L. Modeled treatment of pottery, A (1) 3; Report on collection from *Transactions* and *Journals* of interest to potter craftsman, A (3) 90.
Foster, J. E. Pigments for coloring Portland cement mortar, A (11) 497.
Foster, L. V. Simplified slit ultramicroscope, A (3) 118.
Fox, C. S. Bauxite, B (12) 615.
Fox, G. Motor drives for elevators and conveyers, A (11) 536.
Fox, J. H. Apparatus for making sheet glass, P (10) 439.
Fox, J. H. and Evans, A. E. Car-transfer apparatus, P (2) 71.
Fox, J. J. and Ellis, B. A. Estimation of fluorides, A (7) 306.
Fowle, A. E. Sheet-glass drawing apparatus, P (1) 15.
Fowler, J. S. Dry-pan crusher, P (7) 297.
France, W. G. See Eckert, T. S.
France, W. G. See Keenen, F. G.
Francis, G. R. Old English Drinking Glasses: Chronology and Sequence, B (3) 93.
Francis, W. and Wheeler, R. V. Spontaneous combustion of coal, B (2) 72.
Franzen, N. Production of sheet glass, P (4) 143.
Franzen, W. See Kühn, P.
Fraser, F. Multiple-sheet flowing apparatus, P (6) 220.
Frauenfelder, H. See Frosterus, B.
Freed, M. L. Composition of matter; super-refractory body and process of manufacturing, P (12) 591.
Freeman, P. J. Blast-furnace slag as road material, A (8) 362.
French, J. W. Annealing of glass, A (10) 434; Glass annealing, A (9) 375.
French, M. M. Charting field of opportunity for artist craftsman, A (3) 90; Freeing creative power of individual through making of pottery, A (6) 204; Personal experiences and national life as subject matter for design, A (1) 3.
French, M. M. and Harder, C. M. Low fire glazes using rutile, A (6) 204.
Freundlich, H. and Cohn, H. Properties of alkaline silicic acid sols, A (10) 477.
Frey, A. See Ambronn, H.
von Freyberg, B. Tertiary Quartzite of Central Germany and Importance to Refractory Industry, B (5) 183.
Freyer, E. B. See Yoe, J. H.
Friauf, J. B. Crystal structure of mangesium di-zincide, A (7) 309.
Friedmann, W. Relation between size, capacity, and heat consumption of glass-tank furnaces with regenerative firing, A (7) 278.
Friedrich, K. Method for production of cold glaze upon building material, such as concrete, sandstone, clay, brick work, etc., P (10) 452.
Friedrichs, W. Theory of water pump, A (10) 455.
Fries, C. New stained glass productions, A (8) 329.
Fries, G. M. Interesting historical facts on drain tile, A (3) 103.
Fritz, E. H. Sagger symposium; notes on sagger bodies, A (9) 382.
Fritz, E. H. See Kraner, H. M.
Fritz, H. E. See Rogers, B. W.
Frosterus, B. and Frauenfelder, H. Apparatus for volume determinations, A (6) 230.
Fuchs, E. and Heiland, P. German Faience Culture, B (7) 278.
Fugiwara, K. Method of manufacturing porous plate for purifying sewage, P (11) 516.
Fukuda, N. Process of firing pottery tile, P (11) 538.
Fukaya, T. Anti-freezing agent for concrete, P (11) 502; Manufacturing floor and wall tile from gypsum, P (11) 502; Manufacturing

hardening agent for cement or lime, P (11) 502; Manufacturing white cement, P (11) 503; Water-proofing ceramic ware, P (11) 532; Water-proof plaster of Paris, P (11) 502; Water-proofing agent for cement, P (11) 501.
Fulcher, G. S. Cast refractory article and method of making, P (4) 150; Cast refractory blocks give highly satisfactory service, A (1) 25; Cast refractory product, P (4) 151.
Funk, W. Advances in ceramics in years 1923–1925, A (3) 122.
Fusselbaugh, R. R. Some effects of varying soda and boric oxides in ground-coat enamels, A (6) 212.

Gaisman, L. Apparatus for forming dovetail or undercut recesses in clay or other plastic material, P (8) 355.
Gall, G. A. Effect of sodium carbonate and water-glass solutions on gypsum plaster molds, A (9) 369.
Gamble, C. W. Constants of color: hue, purity, and luminosity, A (5) 164.
Ganguly, P. B. Diffusion of aqueous sodium silicate solutions across semipermeable membranes, A (10) 476.
Gard, J. F. S. Heat-insulating materials, A (3) 105.
Gardner, H. F. Notes on chemical and microscopic determinations of gypsum and anhydrite, A (5) 165.
Gardner, W. T. Refractories in gas industry, A (9) 383, A (10) 445.
Garner, J. Ancient potteries from site of Rakka, A (7) 253; Haban pottery in Brooklyn Musuem, A (12) 556.
Garre, B. Retarding setting of cement by small admixtures of lead oxide, A (10) 426.
Garve. T. W. Factory design. equipment, and manufacture of clay ware, A (3) 103, A (5) 175, A (6) 222, A (8) 343, A (10) 442, A (11) 536.
Gauger, A. W. and Storch, H. H. Process of decreasing rate of crystallization of borax from brine, P (6) 248.
Gaylord W. H. Refractories made of crushed fire brick and cement, A (12) 588.
Gebauer, E. Demands of trass industry, A (8) 325.
Gedroiz, K. K. Chemische Bodenanalyse, B (4) 159.
Gehlhoff, G. and Thomas, M. Investigation of ring ruptures, A (8) 335; Relation between physical properties and composition, III, Viscosity of glass, A (12) 577; Temperature measurement in glass furnaces, A (7) 271, A (8) 331.
Gehloff, G. and Schmidt, R. Storage and packing of glass ware, A (12) 570.
Geilmann, W. Detection of cadmium and arsenic in glass, A (1) 14.
Gell, P. V. W. See Chance Bros., Ltd.
Gell, P. V. W., Gould, C. E., Hampton, W. M., and Martin, H. S. Colorless Crookes glass, P (9) 380.
Geller, R. F. Bureau of Standards investigation of feldspar, 2nd progress report, A (7) 291.
Geller, R. F. and Pressler, E. E. Comparison of softening points of some foreign and American pyrometric cones, A (1) 39.
Gelstharp, F. Apparatus for making plate glass, P (2) 58, P (4) 141; Glass-melting tank, P (4) 141.
Gelstharp, F. and Parkinson, J. C. Glass-grinding processes and apparatus, P (4) 141.
Genders, R. Interpretation of macrostructure of cast metals, A (1) 9.
General Electric Co., Ltd. Glass, P (10) 440.
General Electric Co., Ltd. and Hay, W. Pulverulent fuel burners, P (12) 611.
Gentry, F. M. Equation of conduction in unipolar nonmetallic films, A (12) 618.
George, H. Manufacture of articles in silica glass, P (3) 107; Silica glass, A (9) 389.
Gercke, M. Power plants in building material industry, A (9) 413.
Gerlach, D. W. Eckert hollow brick wall, A (10) 443.
Gerlach, O. Process of manufacture of plaster material, P (12) 566.
Gerold, E. Influence of glaze on some physical properties of porcelain, A (4) 140.
Gessner, H. Weigner elutriator and its practical applications, A (10) 455.
Gheury de Bray, E. J. Velocity of light, A (12) 618.
Ghosh, S. and Dhar, N. R. Sensitizing sols by small quantities of other colloids, A (10) 478.
Gianoli, G. Characteristics of porcelain kaolin, A (4) 152.
Gibbs, R. E. Polymorphism of silicon dioxide and structure of tridymite, A (6) 246; Structure of β quartz, A (11) 541.
Gibson, W. Pottery, A (2) 69; Pottery and brick clays, A (3) 123.
Gibson, W. A. Constant-temperature heater for sheet-glass drawing machines, P (11) 511.
Gieche, W. Qualifications of manager of brick plant, A (10) 443.
Gilard, P. Flaking of refractory bricks, A (6) 225.
Gilderdale, C. W. See Baker, G. R.
Giles, G. University lectureships in decoration, A (11) 494.
Gilkey, H. J. Autogenous healing of concretes and mortars, A (4) 132.
Gill, J. H. Tests on mullite refractories, A (3) 105.
Gillan, J. K. Brick kiln, P (1) 33.
Gilligan, B. C. Glass mold, P (2) 57; Method of making glass molds, P (2) 58.
Gilligan, G. M. See Myers, P. B.
Gillson, J. L. Biaxial calcite, A (12) 612.
Gillson, J. L. and Warren, E. C. Preliminary petrographic study of Portland cement, A (2) 49.
Ginzberg, A. S. and Nikogossian, C. S. Artificial ramsayite, A (7) 306; Solid solutions of calcium and sodium bisilicates, A (2) 76.
Ginsberg, A., Nikogossion, C., and Tschitajew, A. Changes taking place when kaolinite is heated, A (11) 541.
Glaser, L. C. High temperature microscope and significance for glass technologic research, A (6) 230.
Glaser, O. Thermal and microscopical investigations of the cupola-furnace slag systems $MnO-Al_2O_3-SiO_2$, $MnS-MnSiO_3$, and $CaS-CaSiO_3$, A (10) 474.
Glasfabrik Akt.-Ges. and Stein, G. Glass molding and working, P (10) 440.
Glass Division, Standards Committee, AMERICAN CERAMIC SOCIETY. Tentative method for complete sand analysis, A (11) 497.
Goddard, J. F. Supercement: certain cements and their properties, A (3) 95, A (4) 132.
Goddard, W. T. Insulator, P (7) 295. 296.
Goldschmidt, V. M. Geochemical distribution laws of the elements, VIII, Researches on structure and properties of crystals, A (7) 308.
Gombert, J. Development of clay mining, A (5) 176.
Goodnow, M. Native charm of Mexican hand-made tile, A (10) 419.
Goodrich, H. R. Spalling and loss in compressive strength of fire brick, A (11) 522.
Gorton, A. F. Ceramic articles and methods of producing them, P (3) 110.
Goslich. Significance of iron to Portland cement, A (10) 426; Tornebohm and composition of alite, A (11) 541.
Gotze, H. Otto Schott, A (2) 55.
Gould, C. E. See Chance Bros., Ltd
Gould, C. E. See Gell, P. V. W.
Graf, O. Glass as building material in reinforced concrete, A (7) 269.
Grafe, E. Introduction to Chemical Technology of Fuels, B (8) 357.
Graham, C. S. See Williams, C. P.
Granger. Electroösmosis and application to purification of clays and kaolins, A (1) 35.
Granger, A. Report of Federation Nationale des Associations de Chimie de France, A (1) 40.
Granger, A. and Babille, M. Investigations on opalescent glasses, A (4) 138.
Grawe, O. R. Quantitative determination of rock color, A (12) 612.
Greaves-Walker, A. F. Ceramic resources of the South, A (5) 187; Conference on ceramic

research, A (6) 248; Elimination of lamination in clay bars, A (6) 221; What price southern progress, A (9) 400.
Grebel, A. Optimum content of carbon dioxide in spent gas, A (10) 461.
Green, A. T. Cement in 1926, A (6) 210; Comparison of temperature diffusivities and conductivities of silica and fireclay refractories, A (3) 105; Effect of industrial usage on thermal conductivity of semisilica material used in coke-oven wall, A (3) 106; Properties of heat-insulating material for high temperature metallurgical plant, A (6) 236; Relation of science to pottery industry, A (3) 109; Thermal properties of refractory materials and consideration of factors influencing them, A (6) 226, A (10) 445.
Green, A. T. and Dale, A. J. Spalling of refractory materials, A (6) 226, A (10) 445.
Green, A. T. See Vickers, A. E. J.
Green, J. L. Laclede Christy Co. shows need for clay as element in world of industry, A (4) 148.
Green, J. R. Quantitative spectrographic analysis, A (5) 191.
Green, J. S., Jr. Greek vase painting in red-figured style, A (4) 164.
Green, W. J. Uses of sillimanite, A (12) 589.
Greene, G. W. See Sealey, P. T.
Greene, R. F. Building block and wall construction, P (5) 176; Wall construction and building block, P (5) 176.
Greenwood, C. H. Drier, P (4) 154.
Greer, J. B. Glass-cutting machine, P (4) 142.
Gregorius, J. S. Apparatus for drawing sheet glass, P (8) 340; Apparatus for making sheet glass, P (2) 59.
Gregorius, J. S. See Koupal, W. G.
Gregory, J. C. and Burr, M. S. Beryllium and Its Congeners, B (2) 85.
Gregory, W. B. Pumping clay slurry through 4-inch pipe, A (12) 559.
Greig, J. W. Immiscibility in silicate melts, A (4) 157.
Greiner, K. Preventing hairlines in pottery, A (1) 29.
Grewe, J. Firing and cooling of silica brick in tunnel kiln, A (8) 346.
Grieveson, C. W. J. Surface Brightness of Diffusing Glass Ware for Illumination, B (4) 141.
Grieveson, C. J. W. See Buckley, H.
Grieveson, C. J. W. See Taylor, A. K.
Griffin J. T. Cementing material, P (9) 371.
Griffith, N. See Casselman, E. J.
Griffiths, E. New specific heat apparatus, A (6) 241; Some modified forms of hygrometers, A (6) 242.
Griffiths, E. and Awberry, J. H. Hygrometer employing glycerine, A (2) 84.
Griffiths, E. See Awberry, J. H.
Griswold, J. W. Method of and apparatus for controlling combustion of fuel in furnaces, P (12) 608.
Grodner, A. See Larsen, B. M.
Groiemund, L. A. Drawing flat sheet glass, P (2) 58.
Gross, F. Pure gases in glass plant operation, A (7) 299.
Grosse, W. and Dinkler, W. Improved metal calorimeter for determination of specific heat of metals, oxides, and slags, A (7) 304.
Grossinger, A. Building construction, P (12) 628.
Grosvenor, Scientific Products, Ltd. and Turner, B. Refractory material, P (5) 183.
Groum-Grjimailo, W. E. Hydraulic theory of flow of gas in furnaces, A (12) 605.
Grounds, A. Testing of refractory materials, A (6) 227.
Grout, J. R. Fuel savings and kiln turnover, A (4) 154.
Grun, R. Cement, Preparation, Properties, and Uses, B (11) 499; Compounds of the system silicic acid, lime-alumina; properties and technical significance, A (3) 118; New test series on preparation of slag cements, A (10) 426.
Grundy, H. V. and Phillips, A. Refractories in foundry, A (6) 225.
Grunwald, J. Technologie chimique des matières premières de l'émail, B (7) 266
Grunwoldt, H. Purifying minerals (silica, etc.), P (10) 481.
Guardascione, E. Story of porcelain of Capodimonite, A (9) 367.
Guernsey, E. W. See Kinney, S. P.
Guillon, H. High-temperature measurements of gas in industry, A (10) 461; Measurement of gaseous temperatures, A (12) 603.
Gumm, R. See Hyslop, J. F.
Gumz, W. Carbon losses, A (5) 185; Contribution to calculation of combustion of powdered coal, A (8) 357; Influence of preheated air on combustion process, A (7) 298.
Guss, S. Advantages and disadvantages of various types of pot furnaces, A (8) 331.
Gutbier, A. and Brintzinger, W. Swabian clays, A (5) 189.
Guttmann. Protection of workers and neighbors of glass-etching plants, A (8) 329.
Guttmann, A. Causes for decomposition of blast-furnace slags: stability tests, A (9) 403; Testing of stability of blast-furnace slags by ultra-violet light: cause of disintegration of these slags, A (5) 190.
Guttmann, A. and Weise, C. Evaluation of hydraulic properties of slag sand, A (12) 565.
Guy, H. L. Roofing, P (11) 532.
Gyss, E. E. and Davis, H. G. Hardness and toughness of rocks, A (9) 399.

H. v. B. Artificial jewels, A (4) 136.
H. H. Glass paintings in art museums at Basel, A (7) 268; History of stained glass in S. Germany, A (7) 269; Stained glass windows in Nuremburg Gothic churches of St. Sebald and St. Lorens, A (7) 268.
H. K. Resistant glass, A (8) 328.
H. S. Assyrian glasses of 2500–3000 years ago, A (7) 268.
Hack. Calculations for hot-air drier, A (3) 119.
Hacker, W. Gilding of glass, A (7) 256.
Hackl, O. Direct determination of trivalent iron in silicates insoluble in acids, A (10) 472.
Haddan, A. J. H. Refractory heat-insulating material, P (5) 183.
Haddan, R. Glass transparent to ultra-violet rays, P (8) 342.
Haddock, M. H. Location of mineral fields: modern procedure in investigation of mineral areas and subsequent verification of extent, B (2) 75.
Hadert, H. On ceramic color practice, A (9) 368.
Hadfield, R. Manganese and ferro-manganese, A (8) 360; Sheffield and metallurgical development, A (1) 9.
Haegermann. Comparison of German 4900-mesh sieve with English No. 180, A (9) 394; Influence of moist storage during early hardening on tensile strength of mortar and concrete, A (12) 566; Standards for Portland cement, A (8) 325.
Haggerty, J. F. Gypsum plaster, P (9) 373.
Hahn, V. Technical dispersoid analyses, A (10) 472.
Hahnle, O. See Schmidt, O.
Haigh, W. D. Apparatus for determination of extinction coefficients of optical glasses for light in visible spectrum, A (4) 158.
Hailwood, E. A. Glass suitable for casting, P (12) 583.
Halbach, H. L. and Sweet, J. A. Process of flattening window glass shawls, P (5) 173.
Halbherr, F. Remarkable discoveries in Crete, A (12) 558.
Halbig, H. Modern lime kiln, A (5) 167; Modern lime calcining furnace, A (6) 206.
Hall, J. A. Thermoelectric and resistance pyrometry in industry, A (4) 153.
Hall, T. Firebrick problems, A (9) 382.
Halvorsen, H. B. Core drill, P (12) 597.
Halvorson, H. O. and Starkey, R. L. Transformations of iron in nature, I, Theoretical considerations, A (10) 477.
Hamaguchi, U. Emulsive water-proofing paint, P (11) 547.

Hamblen, J. B. See Ward, J. T.
Hamilton, L. F. and Simpson, S. G. Calculations of Quantitative Chemical Analysis, B (12) 623.
Hammer, J. M. Improved factory for Fostoria quality ware, A (1) 12; Tygart Valley Glass Company starts new factory at Washington, Pa., A (6) 215.
Hampton, E. L. Prehistoric American art reborn, A (4) 127.
Hampton, W. M. See Chance Bros., Ltd.
Hampton, W. M. See Gell, P. V. W.
Hancock, F. Molding pottery, P (11) 534.
Handrek, H. Importance of glazes for safe porcelain insulators, A (9) 392.
Hanford, O. A. Glass-forming apparatus P (8) 340, P (9) 380; Glass-forming machine and process, P (9) 379; Method of cooling molds, P (9) 380.
Hankins, G. A. See Batson, R. G. C.
Hanley, W. L., Jr. Brickmaking plant, P (11) 520; Clay tempering and expressing apparatus, P (7) 285; Plant for manufacturing ceramic products, P (11) 519; Process of firing ceramic products, P (10) 464; Tunnel kiln, P (3) 114.
Hannich, W. Production of ornamental glasses by hand and possibility of machine methods, A (7) 256; Production of spun glass and glass figures, A (7) 256.
Hansen, J. E. Effect of mill practice on working properties and finish of vitreous enamels, A (8) 327.
Hansen, W. C., Dyckerhoff, W., Ashton F. W., and Bogue, R. H. Research on lime-silica-alumina (Portland cement) system, A (7) 305; Studies on system lime-alumina-silica: the composition, $8CaO+Al_2O_3+2SiO_3$, A (6) 239.
Hanson, B. M. W. Grinding wheel, P (11) 489; Method of and apparatus for grinding threaded members, etc., P (11) 489.
Hanson, E. S. Development of sanitary ware plant, A (1) 29.
Hantke, G. Thermal dissociation of fluosilicates, A (10) 472.
Harby, J. M. Clay washing, A (9) 409.
Harder, C. M. See French, M. M.
Harding, J. G. Process of manufacturing slag cement, P (7) 263.
Hardy, R. L. See Mathers, F. C.
Hariki, K. See Ueyama, T.
Harkort, H. Improved elutriation apparatus for use in plant-control work, A (7) 297.
Harman, R. W. Aqueous solutions of sodium silicates, A (5) 189; Aqueous solutions of sodium silicates, heterogeneous equilibria of system: $Na_2O:SiO_2:H_2O$, at 25°C, A (6) 239; Aqueous solutions of sodium silicates, silicate ions, electrometric titrations, diffusion, and colorimetric estimation, A (6) 240.
Harr, R. See Endell, K.
Harrington, A. L. Plate-glass surfacing car, P (8) 339.
Harrington, E. A. X-ray diffraction measurements on some of pure compounds concerned in study of Portland cement, A (9) 369.
Harrington, M. R. Form and color in American Indian pottery north of Mexico, A (8) 318.
Harrison, A. C. Preliminary study of resistance to abrasion of ceramic glazes; control and methods of determination, A (4) 151.
Harrison, W. N. and Hartshorn, T. D. Preliminary study of ceramic colors and their use in vitreous enamels, A (11) 503.
Harrison, W. N. and Wolfram, H. G. Effects of composition on properties of ground-coat enamels for sheet steel, A (5) 168.
Hart, H. Quantitative determination of silica in cements by means of membrane filter, A (8) 324.
Hart, R. A. and Clark, H. W. Study of flue lining, A (11) 516.
Hart, W. C. Glass manufacture, P (11) 494.
Hartford-Empire Co. Apparatus for making bottles or similar glass ware, P (12) 583; Making blown glass ware, P (13) 583.
Hartford, F. M. Successful application of powdered coal as tunnel-kiln fuel firing hard-fired common brick, A (1) 17, A (6) 236.
Hartford, F. M. See Robson, J. T.
Hartmann, F. Method for quantitative determination of action of slag and flue dust on refractory brick, A (5) 178.
Hartmann, M. L. Abrasive article, P (4) 126.
Hartmann, M. L. and King, J. A. Silicon-carbide refractories for water-gas generators, A (1) 21.
Hartmann, M. L. and Westmont, O. B. Thermal insulation of electric furnaces: (A new fireclay refractory), A (1) 26.
Hartner, F., Jr. Specific heat of Portland cement clinker, A (5) 167.
Hartshorn, T. D. See Harrison, W. N.
Harvey, H. P. See Varcoe, K. G.
Hartzell, J. Method and apparatus for flattening sheet glass, P (1) 15.
Haslam, R. T. Combustion of solid carbon, A (12) 605.
Haslam, R. T. and Boyer, M. W. Radiation from luminous flames, A (10) 460.
Hatfield, H. S. Apparatus for effecting chemical tests and controlling chemical reactions, P (12) 597.
Hatschek, E. Rigidity and other anomalies in colloidal solutions, A (12) 620.
Hattori, T. Process of manufacturing clay ornaments, P (11) 532.
Haubold, F. Development of German glass industry, A (4) 136.
Hauenschild, A. Fineness of Portland cement and its effect on rate of hydration, A (7) 262, A (12) 565.
Haupt, H. and Popp, G. Use of opacifiers containing antimony in enamel industry, A (8) 327.
Hawke, C. E. Furnace linings, P (12) 591.
Hay, W. See General Electric Co., Ltd.
Hayashi, K. See Matsui, M.
Hayes, H. J. Glass-molding machine, P (1) 16.
Hearing, R. H. and Tefft, C. F. Items requiring consideration in underground clay mining, A (12) 624.
Hechler, F. G. Methods used for measuring heat transmission, A (2) 70.
Heffernan, P. Exposure to silica dust without occurrence of silicosis, A (5) 200.
Heffron, J. F. History of glass making, Stiegel glass, A (1) 14; History of glass making: early glass works in N. Y. and New England States, A (1) 14.
Heichert, H. S. and Evans, A. E. Apparatus for cleaning plate-glass grinding tables or cars, P (2) 59.
Heider, H. v. Ceramic division of Württemburg State Technical School in Stuttgart, A (8) 363.
Heilingotter, R. New cheap cement for floors and wall plastering, A (3) 95.
Heilman, R. H. Determination of thermal conductivities of insulation for temperatures up to 1000°F on other than flat surfaces, A (2) 65.
Heim, L. R. Grinding machine, P (12) 554.
Heindl, R. A. and Pendergast, W. L. III. Progress report on investigation of sagger clays: elasticity and transverse strength at several temperatures, A (8) 350.
Heinecke. Ceramic gossip of old porcelain maker, A (8) 363.
Heinrichs, H. Tarnishing of optical glasses, A (7) 277.
Heinrichs, H. and Salaquarda, F. Valence of arsenic and antimony in glass, A (6) 216.
Heinrichs, H. and Tepohl, W. Sensitiveness of optical glass to spots, A (1) 13.
Heintges, W. Gas-reversing valve, P (10) 457.
Heintzelman, H. L. Glass container art during past 25 years, A (8) 330.
Helbig, A. B. Efficiency of combustion: special reference to use of powdered coal, A (9) 398.
Heller, O. Heat utilization in ceramic plants, A (6) 229.
Helm, G. Electric trucks, A (8) 353.
Hemsteger, S. E. See Stief, W. C.
Henchy, K. See Knoblauch, O.
Henderson, H. G. Korean ceramics, A (10) 420.
Henderson, H. W. C. Electrical precipitation of smoke and fume, A (1) 40.

Henning, F. Effective wave-lengths of pyrometer glasses, A (1) 12.
Henrikson, C. G. See Jones, L. S.
Henry, A. V. Mineral development of Georgia, A (5) 188.
Henze, W. Cobalt underglaze decorations, A (8) 320; Faulty and old plaster molds, A (8) 323; Ivory-toned ceramic products, A (9) 368; Preparation of white glazes and enamels without tin oxide, A (8) 322.
Heramhof, H. See Muthmann, W.
Herbst, H. Apparatus for determination of apparent specific gravity and of porosity of porous materials, A (7) 309.
Hercus, E. O. and Laby, T. H. Thermal conductivity of gases, A (12) 620.
Hermann, H. Glass manufacture, P (10) 440; Porcelain or faience, A (2) 69.
Herrold, R. P. and Moorhead, T. V. H. Trimming machine for clay blocks, P (1) 32.
Hertzka, G. Manufacture of alumina-containing cements, P (7) 264.
Herzog, E. Treatment of silica articles, A (8) 342.
Hewitt, A. E. See Bourne, W.
Heyl, G. E. Making cement from refuse, P (8) 327.
Hibbins, T. A. Apparatus for grinding clays, shales, and other dry and semidry materials, P (11) 537.
Hibsch, J. E. Microscopic investigation of quartzites and silica brick containing lime, A (7) 287.
Hickton, R. Brick machines, P (11) 520.
Hidnert, P. and Sweeney, W. T. Thermal expansion of graphite, A (8) 345.
Hidoux, G. Combined drying and grinding machine for clay and other plastic materials, P (3) 111.
Hielscher, A. Changes in design of Hofmann ring furnace, A (10) 460; New method of firing, A (2) 72.
Higgins, W. F. See Kaye, G. W. C.
Hilbish, J. M. Method of treating blast-furnace slag, P (3) 122.
Hills, A. E. Cement admixtures, P (9) 373.
Himmelright, R. J. Method of making arch bricks, P (9) 390; Refractory block, P (9) 390.
Hinchley, J. W. Fine-grading machines, A (5) 185; Measurement of temperature in industrial practice, A (3) 111; Permanent molds for iron casting, A (8) 327.
Hineis, K. Wall and floor tiles, A (8) 352.
Hinze, H. Colloidal silica: utilization in cements and cement mortars, A (10) 423.
Hirano, K. Pot furnace, P (11) 515.
Hirao, T., Suzuki, S., and K. Method of manufacturing substitute for natural white oilstone, P (11) 490.
Hirasawa, S. Improvement in making spherical, polygonal, or solid stained glass, P (11) 496.
Hirsch, H. Action of silica acid in ceramics, A (11) 541; Effect of various forms of silicic acid on porcelain bodies, A (6) 229; Investigation of load test and expansion of silica brick, A (5) 179; Lining of lime kilns, A (10) 449; Refractories industry as a chemical problem, A (5) 181, A (10) 450.
Hirsch, M. Drying apparatus, B (12) 596.
Hirsch, H. Thermoluminescence of potassium feldspar, A (3) 119.
Hirt, A. New method of firing and new type of continuous kiln for ceramics, A (9) 396.
Hitachi Seisakusho, The. Method of manufacturing enameled electric resistance body, P (11) 505.
Hitchcock, H. K. Apparatus for grading abrasive: applying to continuous grinding systems, P (8) 354; Apparatus for handling glass sheets, P (6) 219; Apparatus for making sheet glass, P (4) 141; Glass-polishing apparatus, P (12) 582; Leer construction, P (10) 439; Plate-glass transfer and laying apparatus, P (8) 340; Process and apparatus for melting glass, P (8) 340.
Hitner, H. F. Apparatus for making glass, P (2) 59; Apparatus for making sheet glass, P (4) 142; Process and apparatus for drawing sheet glass, P (4) 142; Process and apparatus for making glass, P (2) 59.
Hobbie, E. H. and Little, W. F. Transmission of light through window glass, A (2) 54.
Hobson, G. V. Mica and its uses, A (11) 538.
Hobson, R. L. Catalog of the George Eumorfopoulos Collection of Chinese, Korean, and Persian Pottery and Porcelain, B (1) 4; Vol. IV: The Ming Dynasty, B (8) 322.
Hodgson, J. L. Calculation and measurement of air flows in mines, A (1) 40.
Hodkin, F. W. See Dimbleby, V.
Hodkin, F. W. See Firth, E. M.
Hodsman, H. J. Fuel in 1926, A (6) 236.
Hodson, F. Origin of bedded Pa. fire clays in the U.S., A (10) 444.
Hoffman. New apparatus for determination of thermal expansion of solid bodies produced by the optical institution C. P. Goerz, A (5) 190.
Hoffman, F. L. Deaths from Lead Poisoning, B (7) 295.
Hoffman, M. K. Carbon crucible stable at very high temperatures, A (12) 590.
Hohenberger, J. K. Glass bead industry in Fichtel Mountains, A (8) 329.
Holborn, L. and Otto, J. On aging of thermometer glasses, A (7) 277.
Holcroft, C. T. Art of firing ceramic and other products, P (5) 187.
Holdcroft, H. L. Molds for pottery, P (10) 457.
Holley, E. Refractory furnace linings, P (1) 28.
Hollnagel, H. P. and Harty, E. A. Hardness of materials neglected in granulometric sieve analyses, A (4) 160.
Holmes, A. Age of the Earth, B (7) 302.
Holmes, C. W. H. Cleaning coal: special reference to pneumatic separation, A (10) 460.
Holmes, M. E. and Fink, G. J. Production of quick-setting lime products by addition of carbonates, P (1) 8; Quick-setting lime products, P (1) 8.
Holmes, M. K. Glass-working machine, P (11) 512.
Hood, B. M. Manufacture of spiral acid rings, A (2) 68; To sell brick see Europe, A (9) 381.
Hood, H. P. New ultra-violet transmitting glass, A (2) 55.
Hood, O. P. American fuel resources, A (12) 601.
Hoover, H. The nation and science, A (9) 409.
Hoover, H. C. Blue glass used for welding, A (2) 54.
Horiba, S. and Yoshioka, T. Method of manufacturing glass, P (11) 515.
Horio, S. Process of manufacturing magnesia cement, P (11) 501; Water-proof magnesia cement, P (11) 502.
Horovitz, K. Electrometer properties of glasses, A (1) 11.
Horovitz, K. and Zimmerman, J. Interchange of ions in glasses, A (1) 11.
Houldsworth, H. S. See Wood, J. F. L.
Houze, L. J., Sr. Apparatus for manufacturing glass, P (1) 15.
Houze, L. J. Glass-gathering ring, P (7) 282.
Howard, G. E. Apparatus for forming sheet glass, P (4) 143; Apparatus for handling glass ware, P (5) 172; Future trend in plate glass manufacture, I, A (6) 216; Future trend in plate glass manufacture, II, Pot method; III, Continuous tank system; IV, Continuous or car system of grinding and polishing, A (7) 270; Method and apparatus for blowing glass parisons, P (9) 380; Method and apparatus for feeding molten glass, P (4) 143, P (5) 173; Method of and apparatus for forming sheet glass, P (1) 15, P (2) 57, P (4) 142, P (12) 582; Regulating glass feeders, P (10) 437.
Howe, W. L. and Hudson, C. J. Studies in porosity and permeability characteristics of porous bodies, A (7) 303.
Howell, J. W. and Schroeder, H. History of incandescent lamp, A (11) 507; II, A (12) 570.
Howington, J. T. Value of research work to industry, A (1) 18.
Hubbard, A. E. See José, S. E.
Hubbell, J. H. See Kovanda, L. P.
Hudler, D. J. Apparent and actual calorific value, A (7) 304; Generator gas as fuel for high-power and high-pressure boilers, A (7) 312.
Hudson, C. J. See Howe, W. L.

Hudson, C. J. See Larsson, T.
Hudson, R. M. Continuity of operation, A (10) 484.
Huffelmann, K. Determination of heat losses through furnace walls, A (5) 186; Luminous and nonluminous flames in industrial gas furnaces, A (7) 299.
Huffman, H. M. See Parks, G. S.
Hugill, W. and Rees, W. J. Influence of iron oxide and iron sulphides on rate of quartz conversion in commercial silica brick manufacture, A (9) 383; Silica refractories for iron and steel industries, A (6) 225.
Hume, G. S. Carbon ratios of coal as index of oil and gas, A (8) 357.
Hunter, W. K. Method of producing improved lime hydrate, P (9) 371.
Huntley, P. C. See Carpenter, A. H.
Hurd, C. B., Engel, E. W., and Vernon, A. A. Studies of conduction process in glass: I, Replacement of sodium by alkali metals and ammonium, A (6) 218.
Hurlburt, F. A. Heat losses in leer conveyers, A (9) 375.
Hurlburt, F. A. See Coad-Pyror, E. A.
Hurley, R. D. and Patton, B. H. Glass-drawing apparatus, P (8) 339.
Hursh, R. K. See Ketchum, P. W.
Hurt, H. J. Method of and composition for transferring designs, pictures, etc., P (8) 322.
Hutter, C. Control of clay content of heavy clay product bodies, A (10) 443.
Hyde-Jocelyn, C. Origin and history of Capo di Monte, A (7) 254; Meissen ware and its modelers, A (12) 557; Rise and fall of Rockingham, A (9) 367.
Hyslop, J. F. Fireclay refractories, A (6) 227.
Hyslop, J. F., Gumm, R., and Biggs, H. Corrosion and erosion phenomena: their bearing on macrostructure of refractories, A (6) 214.
Hyslop, J. F. and Rooksby, H. P. Note on X-ray patterns of mullite and sillimanite, A (6) 223

I. K. H. Quicksilver application in mirror industry of Fürth, A (7) 268.
Iannelli, A. Created ceramics, A (3) 91.
Ibbotson, W. H. Some notes on pickling of steel, A (12) 568.
Iding, M P. and Nimtz, W. A. Composition, P (9) 390.
I. G. Farbenindustrie Akt.-Ges. Acid-proof cements P (12) 567; Melting of potash glasses, P (12) 586.
Illgen, F. Effect of slag in blast-furnace gases on melting point of fire clays with varying alumina contents, A (2) 65; Expediency of establishing testing laboratory for refractory materials in a metallurgical plant; arrangement and problems of testing laboratory, A (7) 286; Influence of blast furnace dust on cone fusion point of clay material with various alumina contents A (6) 224.
Illinois Pacific Glass Co. Annealing glass, P (10) 440.
Immke, H. See Miehr, W.
Inge, L. and Walther, A. Penetration of glass, A (1) 12.
Inglis, P. R. Repairing leaky baffles with refractory gun, A (1) 24.
Insley, H Microstructure of earthen ware, A (7) 291; Quantitative microscopic analysis of commercial feldspar, A (10) 468; Some observations of surface deposits formed in glass-furnace regenerators, A (1) 10; Surface deposits in regenerators, A (4) 147.
Institute of Physics and Chemistry, The. Process of manufacturing water-proof substances from alkali silicates and acidic anhydrous inorganic matter, P (11) 501.
Ippach, H. See Keppeler, G.
Irresberger. Refinement of cast-iron by shaking, A (2) 51.
Irving, G. S. See Lewis, W..B.
Ishigaki, T. See Ishiwara, T.
Ishiwara, F. Process of manufacturing grinding wheel, P (11) 490.
Ishiwara, T., Yonekura, T., and Ishigaki, T. Ternary diagram of system iron-carbon-copper, A (10) 478.
Iskull, W. Behavior of kaolinite at high temperatures, A (10) 470.
Isley, G. H. Apparatus for reversing and controlling regenerative furnaces, P (9) 399.
Ito, I. See Bessho, T.
Ito, J. Process of preparing flux for glass colors, P (11) 515.

J. K. H. Technique of mirror manufacture in the course of time, A (8) 328.
J. Z. Thorn-Prikker; his religious glass windows, A (7) 267; Mathias Grunewald and glass staining, A (5) 164.
Jack, R. L. Clays, A (12) 586; Pitting of tiles at seaside, A (1) 20; Pottery, A (1) 30.
Jacker, O. Combustion engineering and development during last 50 years, A (9) 398.
Jackman, D. N. See Parker, R. G.
Jackson, F. H. Effect of size of paving brick on rattler loss, A (4) 145.
Jackson, H. Coloring agents in glasses and glazes, A (11) 509; A (12) 571.
Jackson, R. P. Method of and means for coating inner surfaces of hollow bodies, P (5) 184.
Jacob, K. Contribution to technique of ceramic decoration, A (8) 320.
Jacopson, M. W. S. Endeavors for modernization in Russian glass industry, A (7) 268.
Jaeckel, G. A few recent absorption glasses, A (7) 277.
Jaeger, F. G., Cooke, R. D., Fellows, R., and Jennings, A. Enamel symposium, A (7) 265.
Jaeger, F. M. Methods of physico-chemical research at high temperatures, A (1) 37.
Jaeger, F. M., Westenbrink, H. G. K., and van Melle, F. A. Structure of artificial ultramarines; relation between these and minerals: hauynite, noselite, sodalite, lazurite, and nephelite, I, A (9) 406.
Jaekel, W. Modern forms of electrical temperature measuring devices, A (4) 154.
Jaeschke, A. Influence of molten glass on refractory materials, A (7) 288; Regenerators for glass furnaces, A (12) 574.
Jahn, C. See Schoeller, W. R.
Jakob, J. Chemistry of silicates on basis of coördination theory, A (12) 622.
Janecka, E. Compound $8CaO \cdot 2SiO_2Al_2 \cdot O$. as "alite" of Portland cement clinker, A (5) 167.
Japhe, D. Taylor studies of technical analyses of raw materials for glass; II, Mineral potash, A (12) 615.
Jebsen-Marwedel, H. Course of crack in breaking up of solid (lump) glasses through blow or impact, A (12) 570.
Jeffery, J. A. and Montgomery, E. T. Ceramic material, P (8) 353; Ceramic insulating material, P (8) 353.
Jenkins, P. W. Method of manufacturing decorative glass ware, P (1) 14.
Jennings, A. See Jaeger, F. G.
Jennings, J. H. Manufacture of Portland cement, A (3) 94.
Jennings, P. H. Produces ultra-violet transmitting glass, A (4) 135.
Jeppson, G. N. Aggregate-cement tile, P (5) 162.
Jeppson, G. N. and Beecher, M. F. Method of making laminated ceramic articles, P (3) 108.
Jeppson, G. N. and Leafe, C. L. Terazzo tile and method of making, P (5) 162.
Johnson, B. M. Kiln, P (3) 114.
Johnson, C. E. See Casselman, E. J.
Johnson, J. A. See Luckett, G. B.
Johnson, N. C. See Ross, S. F.
Johnson, W. C. Tubular pyrometer sheaths of sheet chromium steel, P (7) 297.
Jones, J. M. and McLachlan, T. Moisture determination by volatile solvent method, A (8) 360.
Jones, L. S., Fisher, G. W., and Henrikson, C. G. Tile-coating machine and process, P (7) 295.
Jones, W. J. Internal frosted lamp, A (8) 334.
Jones, W. R. D. Dolomite, A (7) 289; Fire clay, A (7) 301; Refractory materials of S. Wales, A (8) 345, A (9) 389; Silica, A (7) 301.

de Jong, W. F. and Willems, H. W. V. Compounds Fe_2S_4, Co_2S_4, Ni_2S_4; their structure, A (10) 479.
Jordan, L., Peterson, A. A., and Phelps, L. H. Refractories for melting pure metals: iron, nickel, platinum, A (1) 25, A (2) 67.
Jordan, R. Manufacture and use of silica bricks, A (10) 450.
Jose, S. E. and Hubbard, A. E. Insulation of ceramic kilns, A (3) 112.
Joseph, A. F. and Oakley, H. B. Anomalous flocculation of clay, A (12) 620.
Jourdan, C. J. N. Corundum, A (4) 126, A (8) 358; Kaolin, A (8) 359.
Jourdan, F. Alkaline treatment of leucite for potash, A (10) 470; Process for treatment of leucite and other sodium and potassium silicates with lime for purpose of extracting potassium or sodium and aluminum value, P (5) 194.
Joyce, T. A. Report on Investigations at Lubaantum, British Honduras, in 1926, B (4) 128.
Judge, F. P., Jr. Need for research and education in the dinnerware branch of ceramic industry, A (3) 120.
Judson, L. V. Study of sieve specifications, A (1) 31.
Justice, I. M. North-State Pottery, A (3) 93.
Justin-Muller, F. Effect of chloride and metallic sulphates on hardening of sand-lime mortars, A (5) 166.

K. Glass and mosaic works of art in Gallery for Christian Art in Munich, A (8) 319.
Kall, G. A. Constitution of kaolin, A (6) 241; Observations on rational analysis, A (7) 307.
Kallauner, O. Zettlitz kaolin in Czechoslovakia, A (1) 33.
Kallenbach, M. Preparation of mirror surfaces, A (7) 267.
Kameyama, N. Achievement in manufacture of soda ash, A (10) 469; Alumina from clay, A (10) 448; Industrial chemistry in Japan; research institutions; scientific societies, A (10) 469; Japanese acid clay, A (10) 467.
Kamienski, B. Hydrogen absorption by sodium and calcium, A (10) 474.
Kanematsu, T. and Yokota, S. Process of putting marble pattern of luster on pottery, P (11) 495.
Kanhauser, F. Theoretical considerations on refractory building materials, A (12) 590.
Karg, A. R. See Weiss, J.
Karmaus, H. Studies on some chemical and physical properties of lead glasses as functions of their compositions, A (8) 336.
Kasahara, S. Method of manufacturing brick, P (11) 522.
Kassler, H. New process for preparation of alumina from natural silicates, A (5) 181.
Kato, K. Improvement on pattern paper for enameled ware, P (11) 496.
Kauffmann, O. Comparison of expenses for operating 3 different types of kilns, A (7) 297; Growth of floor-tile industry, A (7) 294.
Kausch, O. Silica Gel and Refining Earths, B (12) 623.
Kaye, G. W. C. and Higgins, W. F. Thermal conductivity of vitreous silica; note on crystalline quartz, A (6) 224.
Kaye, G. W. C. and Roberts, J. K. Thermal conductivities of metal crystals, I, Bismuth, A (6) 241.
Kaye, G. W. C. See Buckhurst, I.
Keene, A. D. Electric furnace, P (6) 232, 233, P (10) 457; Furnace, P (10) 457.
Keenen, F. G., Bennett, G. W., and France, W. G. Automatic device for taking motion pictures at regular time intervals, A (7) 302.
Keenen, F. G. and France, W. G. Adsorption at crystal-solution interfaces; II, Individual macroscopical potassium alum crystals grown in presence of gelatin and dyes, A (11) 539.
de Keghel, M. Cements for glass and pottery, A (2) 68.
Kelleher, J. Electric furnace, P (10) 464; Tunnel kiln, P (12) 607.
Keller, J. R. Apparatus for feeding molten glass, P (2) 57.
Kelley, K. K. See Parks, G. S.
Kelsey, C. A Heat-balance in industrial plants, A (6) 249; N. C. feldspar, A (2) 74.
Kennaday, C. P. See Kreger, J. M.
Kennett, W. C. Electrical insulator, P (11) 534.
Kenyon, H. C. Making pyrometer save money, A (7) 298.
Kephart, A. T. Glass manufacture; forming articles from tubular blanks, P (10) 441.
Keppeler, G. Chemical resistance of glasses, A (5) 171; Concerning plasticity of clay, A (10) 471; Softening of clay by heat, A (7) 304.
Keppeler and Muller. Constituent proportions of magnesia cements; soundness; tensile strength, A (10) 423.
Keppeler, G. and Ippach, H. Stability of glasses in the soda–lime–silicic acid system, A (12) 569.
Kerpely, K. v. Materials for and building of electric furnaces, A (10) 447.
Kerridge, P. M. T. Use of glass electrodes, A (10) 471.
Kerstan, A. Resistance of enamel to attack by mineral acids, A (9) 374.
Kerstan, W. Special acid-resisting enamels, A (7) 266; Special oxide for acid-resisting enamel, A (8) 327.
Ketchum, P. W., Westman, A. E. R., and Hursh, R. K. Measurement of permeability of ceramic bodies, A (4) 156.
Kettle, E. H. Experimental silicosis, A (5) 200.
Kiddle, J. K. Calcination of limestone in electric furnace, P (6) 212.
Kieffer, E. Concerning expansion behavior of raw sagger materials containing quartz, A (8) 351.
Kiepenheuer, L. History of so-called dolomite cement; influence of burning temperature on character of dolomitic lime, A (12) 565.
Killias, E. Hard-fired cobalt, A (11) 492; Practical notes on art pottery, A (5) 165.
Killig. Effects of admixtures of $CaCl_2$ on properties of cements, A (8) 324.
Kimble, R. T. Machine for finishing pressed-glass articles, P (8) 338.
Kincaid, F. J. See Small, J. B.
King, C. R. Cutting-off abrasive wheel, P (4) 126.
King, G. See Lewis, E. I.
King, H. K. Method and means for repressing bricks, P (8) 356.
King, J. A. See Hartmann, M. L.
King, J. G. Production of liquid fuels for oil, A (9) 398.
King, R. M. See Watts, A. S.
King, W. F. Manufacture of glasshouse lime, A (10) 432.
Kingsbury, P. C. Stoneware as chemical engineering material, A (9) 391.
Kingsley, C. B. Batch feeding to glass tanks, P (6) 220.
Kinney, S. P. and Guernsey, E. W. Occurrence and significance of alkali cyanides in iron-blast furnace, A (6) 225.
Kinon, N. Nonsplintering safety "Kinonglass," A (7) 268.
Kinoshita, K. See Kôzu, S.
Kinzie, C. J. Method of making zirconium compounds, P (2) 67; Zirconium compound and method of making, P (5) 194; Zirconium oxide silica composite and method of making, P (5) 194.
Kipping, F. S. Organic derivatives of silicon, Pt. 32; carbon-silicon binding, A (10) 471.
Kirchner, J. E. Laminations; scientific study, A (10) 453.
Kirkpatrick, F. A. Drying problems of terra cotta, A (8) 349.
Kitagawa, K. See Takamatsu, S.
Klar, H. Decoration of ceramic products, A (11) 493.
Klasse, F. See Kühl, H.
Klehe, T. Automatic shaft kiln in lime industry, A (10) 422; Grinding in cement industry, A (8) 325.
Kleinschmidt, B. Carborundum as refractory material; increasing use in Germany, A (5) 181.
Klinke, H. Estimation of sulphate ion in very small amounts, A (12) 619.

Klinkhardt, H. New method for determination of true specific heats at high temperatures, A (5) 193.
Klitzke, G. Researches on Chinese-red glazes, A (5) 164.
Klug, J. Wrong methods in manufacture of earthen ware; suggestions for improvement; reduction in costs in production, A (12) 592.
Knapp, O. Brilliancy and composition of glass ware, A (6) 215; Compounding of lead glasses, A (12) 569; Durability of lead glasses and Peddle generalization, A (3) 97; Mixtures for glass pots and tank blocks, A (7) 290; Theory of glass pot production, A (7) 290.
Knappen, R. S. Geology and mineral resources of Dixon quadrangle, A (11) 538.
Knibbs, N. V. S. Process of heating lime to make lime blocks, stucco, etc., P (8) 326.
Knight, N. Some dolomites, A (5) 181.
Knoblauch, O. and Henchy, K. Introduction to Exact Technical Temperature Measurements, B (5) 194.
Knoliman, H. J. Refractories for oil-gas manufacture, A (2) 64; Use of super-refractories as checker brick in gas manufacture, A (6) 223.
Knopf, C. L. See Larson, C. M.
Knowles, H. B. See Lundell, G. E. F.
Knowles, J. A. Differences between English and foreign glass stainers in 16th century, A (7) 268; Middle Age methods for application of cartoons by use of colored glasses, A (7) 268; Origin of colored glasses used in stained glass windows of Middle Ages, A (8) 320; Periodic plagues in 2nd half of 14th century; effect on stained-glass art, A (8) 329; Stained glass; a lost art? A (1) 4; Transition from mosaic to melt method in glass staining, A (7) 269; Variegated glass windows in Middle Ages, A (7) 268.
Knowles, W. V. Control testing of borax and soda ash stocks used in smelting of enamel frits, A (7) 265.
Kobayashi, K. and Yamamoto, K. Physico-chemical properties of acid clay; I, Ultramicroscopic observation of acid clay, A (10) 470.
Kobayashi, S. Electric furnace, P (11) 537.
Kobbe, W. H. Strengthening and indurating concrete with sulphur, A (1) 7.
Kober, S. See Neumann B.
Koberling, J. Tile-molding machine, P (2) 63.
Koch, W. C. A.S.T.M. specifications for building brick, A (1) 19.
Koegel, A. Powdered coal furnaces, A (9) 398.
Kohl, H. Chemist in ceramic industry, A (10) 471; Kohl's viscosimeter, with special reference to adaptability to refractory industry, A (1) 29; Modulus of rupture of dried clays as measure of plasticity, A (6) 240; Plant control; importance, A (9) 403.
Koenig, R. H. Machine for shaping ends of glass tubes, P (12) 581.
Kohler, L. Application of weather-proof coatings to objects of clay, etc., by cold method, P (10) 484.
Kohler, W. F. Reports new glass with remarkable properties A (8) 329.
Kohout, J. F. Nitrogen as catalyst in determination of sulphur in coal by bomb-washing method, A (11) 540.
Kojima, J. Bowl insulating heat, P (11) 535.
Kokueki Bosui Kogyo Co., The. Process of preparing water-proof agent for cement, P (11) 501.
Kolthoff, I. M. Volatility of borax, A (9) 404.
Konarzewski, J. Influence of wet grog on properties of saggers and other refractory goods, A (9) 384.
Konarzewski, J. and Vickers, A. E. J. Discoloration of clays during firing, A (9) 396.
Konishi, S. Method of manufacturing lens body, P (11) 515.
Kopazewski, W. Les ions d'hydrogène: Significance mesure, applications, données numériques, B (3) 119.
Kopka, G. Bohemian lignite or German briquets, A (9) 398; Ceramics and firing technique, A(10) 462; Recent work on firing ceramic kilns, A (10) 463.
Kopka, G. and Zapp, F. Practical experience with rational analysis of kaolins, A (8) 359, A (9) 401.
Koppers, H. Apparatus and process for firing ceramics, etc., P (8) 358.
Korber, F. High-frequency induction furnaces, A (3) 113.
Korber, W. Resistance of refractory materials to slags, A (8) 348.
Kordes, E. G. Tammann's doctrine on structure of mixed crystals, A (7) 303.
Kordt, O. Grinding, crushing, P (12) 600.
Kornfeld, H. Question of requirements of refractory materials, A (5) 189; Temperature curve and heat flow in periodically heated walls of variable heat conductivity, A (10) 480.
Kosman, M. See Lubirski, P.
Kostner F. Problem of kaolin formation, A (12) 615.
Kotani, I. Process of acid-proofing concrete surface, P (11) 503.
Koupal, W. G. and Gregorius, J. S. Glass-drawing apparatus P (8) 339.
Kouwenhoven, F. W. Testing of milk bottles, A (4) 138.
Kovanda, L. P. and Hubbell, J. H. Lining block for sewers, etc., P (11), 520; Molten material spraying apparatus, P (11) 537.
Kozu, S. and Masuda, M. Influence of temperature on path difference and on schillerization in soda-orthoclase and moonstone, A (10) 478.
Kozu, S. and Saiki, S. Thermal expansion of alkali feldspars, A (12) 621.
Kozu, S., Seto, K., and Kinoshita, K. New mineral, kôchite ($2Al_2O_3 \cdot 3SiO_2 \cdot 5H_2O$), A (10) 478.
Krak, J. B. Manufacture of light-diffusing glasses, A (7) 272.
Kraner, H. M. Selection of porcelain for electrical purposes, A (1) 30.
Kraner, H. M. and Fessler, A. H. Redesigned driers, A (1) 31.
Kraner, H. M. and Fritz, E. H. Study of some factory processes, A (7) 311; Watch your power factor, A (7) 312.
Kraner, H. M. See Fessler, A. H.
Kranzlein, G. and Voss, A. Process for preparation of magnesium chromates, P (9) 408.
Kratzert, J. See Miehr, W.
Krause, O. Application of X-rays and fluorescent rays to white wares, A (8) 352; Deformation of ceramic masses on drying, A (1) 41.
Krauze, H. F. See Agde, G.
Kreger, J. M. and Kennaday, C. P. Development of porcelain (all clay) sanitary ware bodies, A (12) 592.
Krehbiel, J. F. See Orton, E., Jr.
Kreidl, I. Enamels, P (3) 96.
Kreisinger, H. Burning powdered coal under boilers, A (9) 411.
Kretzschmer, F. Heat technologic work measurements, A (7) 303.
Krieger, B. Arnoud sand-lime brick plant, A (10) 443; Development of sand-lime brick, A (8) 325.
Krieger, Y. F. Report of titanium commission on experimental results in chlorinating ilmenite, A (9) 388.
Kriegsheim, H. and Vaughan, W. Manufacture of precipitated zeolites, P (12) 623.
Krishnamurti, P. and Dey, B. B. Hydrolysis of zirconium chromate, A (5) 192.
Krishnan, M. S. Bauxite, A (12) 613.
Kruger, F. A. O. Color standards and color measuring, A (6) 206.
Kruson, J. H. Preparing refractories for rotary kilns, A (12) 589.
Kucera, P. Method and apparatus for regulating glass machines, P (11) 510.
Kuechler, A. H. See Wheeler, E. S.
Kuhl, H. Accelerated cement burning process, P (9) 372; Five decades of research on cements, A (8) 325; Free lime in Portland cement, A (12) 565; Glass capable of withstanding abrupt changes of temperature, mechanical shock, and chemical action, A (5) 172; Quality glass from German raw materials, A (12) 572.

Kuhl, H. and Klasse, F. Rapid determination of lime in cements and cement raw materials, A (12) 565.
Kuhn, A. See Ostwald, W.
Kuhn, E. Simple method for determination of specific gravity of brick, A (10) 470.
Kuhn, P., Beckman, O., Franzen, W., Neumann, G., and Schack, A. Tests on modern regenerator at A. G. Charlotte works in Niederschelden on Sieg, A (10) 462.
Kulman, C. A. Heat loss in flue gas, A (12) 602.
Kummel, H. B. Building of N. J., A (11) 538.
Kuno, M. Process of giving marble pattern to ornamental brick or tile, P (11) 532.
Kurosawa, T. See Toyokawa, K.
Kuske, B. Economic development of glass industry in Rhineland since antiquity, A (7) 271.
Kutchka, K. G. Furnace for heating glass blanks, P (4) 143; Glass-melting tank, P (10) 439; Sheet-glass cylinder drawing furnace, P (12) 606.
Kyropoulos, S. Preparation, refractive index, and dielectric constant of red crystalline selenium, A (9) 408.

Labad, A. Enamels on glass, A (12) 569.
Laby, T. H. See Hercus, E. O.
Lacore, A. and Piron, J. Rotary kiln, P (8) 357.
Ladoo, R. B. Fluorspar mining, milling, and utilization; chapter on cryolite, A (12) 615.
Laeger, H. Machinery for lime works, A (10) 422; Modern lime kilns, A (8) 325.
La France, R. Conveying apparatus, P (7) 281; Forming glass articles, P (10) 437, P (11) 511; Means for forming charges of molten glass, P (7) 281.
Lai, C. F. Sheet-steel cooking ware white enamels economically suitable for use in China, A (5) 168; Use of muffle furnace in testing of vitreous enamels, A (6) 212.
Laird, F. W. Sedimentation of colloidal particles, A (12) 620.
Lamar, J. E. Economic geology of limestones of Ill., A (7) 301; Geology and mineral resources of Carbondale quadrangle, A (6) 237; Limestone for sewage filter beds; causes of disintegration; desirable properties and methods of testing, A (11) 545; Preliminary report on economic mineral resources of Calhoun County, A (6) 237.
Lambie, J. M. and Ross, D. W. Method of and apparatus for forming articles of plastic material, P (3) 112; Mold for casting clay blocks, etc., and method of molding, P (7) 297.
Lamond, C. C. Jr. Sewer pipe manufacture in Old Virginia, A (8) 343.
Lamy, E. J. Conveyer, P (12) 598.
Lander, C. H., etc. Coal cleaning, A (9) 398.
Lander, C. H. and Cobb, J. W. Coal supplies and their utilization, A (12) 602.
Landon, H. Art instruction in potteries, A (7) 255.
Landrum, R. D. Necessity for operating standards and procedure control in enamel industry, A (7) 265.
Lanhoffer, I. E. Preparation of cement raw material for rotary kiln process, P (7) 263.
Lanning, J. Gypsum deposits of Moose River (northern Ontario), A (3) 115.
Larsen, B. M. Some notes on open-hearth refractories, A (9) 385.
Larsen, B. M. and Grodner, A. Factors affecting open-hearth refractories, A (6) 224, A (9) 385;
Larsen, B. M., Schroeder, F. W., Bauer, E. N., and Campbell, J. W. Service conditions of refractories for open-hearth steel furnaces, A (1) 26.
Larsen, B. M. See Schroeder, F. W.
Larson, C. M. Viscosimeter, P (9) 395.
Larson, C. M. and Knopf, C. L. Dilutometer, P (9) 395.
Larsson, T. Mounting for segmental wheels, P (2) 48.
Larsson, T. and Hudson, C. J. Jolting apparatus and method of making articles of bonded grains, P (1) 3.
Lassieur, A. Analysis of silicates, A (5) 193.
Latimer, W. M. See Buffington, R. M.
Laubengayer, A. W. See Dennis, L. M.
Laurent, J. Vault for baking ovens or kilns, P (4) 155.
Laurie, A. P. Decay of modern brick work, A (8) 342.
Laurie, A. P. and Milne, J. Evaporation of water and salt solutions from surfaces of stone, brick, and mortar, A (12) 587.
Lawson, H. B. Apparatus for feeding glass, P (1) 16.
Leafe, C. L. See Jeppson, G. N.
Leataud, J. Masters of Limoges enamel, A (12) 568.
Lebedeff, A. A. Annealing of optical glass, A (1) 11; Structure changes in glass A (12) 573.
Lebedev, P. I. Mechanism of crystallization in solid state, A (7) 309.
Lecher, O. Modern glass mixtures, A (7) 273; Modern glass mixtures; yellow and brown glasses, A (12) 572.
Lecomte du Nouy, P. Surface equilibria of colloids, B (2) 85.
Lecrenier. Ceramic products Report of Belgian National Chemical Com., A (1) 40; Crystallization of glass, A (10) 436.
Lee, A. Hildreth Meiere, mural painter, A (10) 419.
Lee, H. A. Conveyers replace 50 men, A (10) 454.
Lefebure, V. Plastic compositions containing colloidal silicates and metallic oxides, P (9) 371.
Leimbach, G. Determination of potassium in mixtures of salts, especially in saltpeter of Chile by perchlorate method, A (11) 542.
Lemal, L. Determination of titanic acid in refractories, A (12) 619.
Le Mare, E. B. Process of and apparatus for rolling glass, P (6) 219.
Lemley, W. E. Mining shale for sewer pipe, A (9) 409.
Lenchner, T. Study of color; application to ceramic art, A (8) 318.
Lenher, S. Adsorption of water vapor on plane fused quartz surface; isosteric heats of adsorption of water on silica and platinum, A (3) 119.
Lenox-Conyngham, G. Pendulum apparatus for gravity determinations, A (2) 84.
Lent, L. B. Brick in engineering and architecture, A (6) 221; Miami disaster as viewed by an engineer, A (1) 18.
Lents, J. M. and Miller, F. R. Method and apparatus for fire-finishing glass articles, P (7) 281.
Leonard, R. J. Hydrothermal alteration of certain minerals, A (10) 468.
Lepeshkin, V. V. Mechanism of coagulation, A (10) 476.
Levetus, A. S. Wiener Werkstätte and Austrian industry, A (2) 49.
Levy, A. Modern design suitable to modern tastes, A (12) 554.
Levy, E. J. Thermostat, P (12) 598.
Lewis, E. H. Silica gel, A (12) 617.
Lewis, E I. and King, G. Making of a Chemical, B (12) 623.
Lewis, E. J. See Coon, J. M.
Lewis, R. S. Trend of engineering education, A (9) 412.
Lewis, W. B. and Irving, G. S. Scientific treatment of boiler feed water; colloidal aspect, A (3) 121.
Lewis, W. N. Method of making decorated china ware, P (11) 494.
Liebe, H. C. See Nichols, J. B.
Liebig, W. Phonolith in glass manufacture, A (4) 138.
Lilley, D. D. Should glass tank blocks be mullite or flux blocks? A (4) 148.
Lincoln, F. J. Rock products industry in S. D.; andalusite, bentonite, feldspar, and gypsum, A (7) 301, A (8) 361.
Lind, S. C. See Nyswander, R. E.
Lind, S. C. See Porter, F.
Linderman, G. B., Jr. Specific gravity determining apparatus, P (12) 623.
Lindman, E. I. Porous clay insulators, P (12) 595.
Lindstrom, R. S. Cement composition, P (9) 371.

Linton, R. Notes on firing in downdraft periodic kilns, A (8) 356.
Linstow, F. N. Electric time-element device, P (12) 598.
Liptak, M. Baffle wall for furnaces, P (11) 531; Hollow fire-wall construction, P (12) 587.
Litinsky, L. Directions for designing gas-works oven, A (7) 288; Choice of Producer-Gas Firing System, B (5) 187; Refractory materials for coking chambers and gas plates, A (1) 21, A (5) 177; Refractory Materials for Chambers of Coke Ovens and Gas Producers, B (5) 182.
Litinsky, L. and Steinkamp, J. H. Requirements for refractory oven material A (12) 590.
Little, A. D. Impending changes in use of fuels, A (12) 601.
Little, W. F. See Hobbie E. H.
Littleton, J. T., Jr. Measurement of softening temperature of glass A (9) 374; Method for measuring softening temperature of glasses, A (6) 213; Value of laboratory to corporation, A (4) 159.
Littleton, J. T., Jr. and Bates, H. C. Relative efficiency of Pyrex glass and metal condenser tubes, A (8) 278.
Littlewood, T. H. See Martin, G.
Lloyd, F. E. and Scarth, G. W. Surface-tensiometer and osmometer for class work, A (1) 37.
Lobb, F. H. Device for discharging molten material, P (2) 57.
Lober, E. Contribution to history of lamp working in Thuringian woodlands, A (7) 274.
Loblein, F. See Berl, E.
Locke, F. M. Glass, P (7) 279.
Lockemann, G. Testing of porcelain and glass laboratory ware for arsenic, A (11) 542.
Lodachnikov, V. N. Microscopic researches on feldspars, A (7) 308.
Loewe, S. Electric resistances, P (12) 611.
Logue, P. See Booth, C. F.
Long, B. Glass and process of making same, P (9) 381; Prevention of color development in glasses by exposure to sunlight, P (12) 585; Use for zirconia in glasses, P (12) 585.
Longenecker, L. S. Mullite refractories, A (2) 64.
Longley, J. N. Asbestos fibers, A (9) 403.
Lorah, J. R. Uranium oxide colors and crystals in low temperature glaze combinations, A (11) 539.
Lorenz, E. H. and Davis, J. Glassware-transferring device, P (10) 438.
Lotz, W. German industry: training designers, A (2) 49.
Lounsbery, E. Combining pottery and flowers for table decoration, A (7) 253.
Lovejoy, E. Valuation of clay properties, A (4) 157.
Loveland, R. P. and Trivelli, A. P. H. Mathematical methods of frequency analysis of size of particles; I, Methods, A (12) 619.
Lubirski, P. and Kosman, M. Method of measuring size of particles, A (4) 158.
Lubowsky, S. J. Method of transforming titanium-dioxide or rutile and product thereof, P (11) 543.
Lucas, A. Ancient Egyptian Materials, B (1) 5; Problems in connection with ancient Egyptian materials, A (3) 93.
Luckett, G. B. and Johnson, J. A. Refractory material suitable for coverings and process of forming, P (12) 590.
Ludwig, R. U. Combined brick kiln and drier, P (7) 299.
Lueg, P. Infra-red absorption of didymium in glasses and solutions, A (8) 337.
Luff, B. D. W. Use of microscope in analysis, A (5) 191.
Luftschitz, H. Colloidal silica, A (10) 423; Effect of colloidal silica on lime and lime hydrate, A (10) 423; Magnesia cement and colloidal silica, A (10) 422; Strength variations of Portland cement lime mixes, A (9) 370, A (10) 425.
Lulofs, W. Pulverized fuels, A (10) 461.
Lundell, G. E. F. Analysis of soda-lime glass, A (5) 170.
Lundell, G. E. F. and Knowles, H. B. Analysis of soda-lime glass, A (12) 615.
Lux, E. Changes in silica brick during use in Martin furnace, A (7) 287.
Luyten, W. J. Mirror 25 ft. in diameter proposed for massive telescope, A (1) 14.
Lykken, H. G. See Wilson, W. E.
Lyon, J. B. Efficient round, downdraft kiln for firing refractories, A (6) 234; Kiln construction; efficient round, downdraft kiln for firing refractories, A (5) 185.
Lyons, E. Thioglycolic acid as color test for iron, A (10) 469.
Lyssin. Constitution of porcelain during firing, A (2) 69.

MacDougall, F. H. Thermodynamics and Chemistry, B (8) 361.
MacGee, A. E. Heat required to fire ceramic bodies, A (7) 298; Several gas-expansion porosimeters, A (2) 70; Some physical properties of chemical stoneware bodies, A (9) 400; Some thermal characteristics of clays, A (9) 400, A (12) 587.
MacGee, A. E. and Simpson, H. E. Diatomaceous earth casting, slop-molding, and casting bodies, A (1) 25.
MacGee, A. E. See Cohn, W. M.
MacIlwain, G. E. Best way to avoid depression, A (9) 410; Building now running on its second wind, A (10) 442; Business sound with plenty of money, A (11) 544.
Mackay, P. A. Production of titanium oxide, P (3) 120.
Madden, H. D. Machine for deforming glass articles, P (7) 279.
Maeda, F. Process of manufacturing magnesia cement, P (11) 503.
Maeda, T. Aqueous vapor pressure of magnesium-oxychloride cement; state of water in it, A (7) 262; Colloidal theory of cements, A (10) 427. Study of magnesium-oxychloride cement with X-rays, A (7) 262.
Maeulen, F. See Colby, E. A.
Maguet, M. Method and means for treatment of slags by fluids under pressure, P (7) 263.
Main, V. R. Viscosity of aqueous solutions of silicates of soda, A (7) 274.
Maksimenko, M. S. Experimental investigation on problem of obtaining titanium carbide, A (9) 388.
Maksimenko, M. S. and Eliseev, A. Technical report on experiments on chlorination of titanium carbide, A (9) 388.
Malinovszky, A. Agreement of ground coat and enamel, A (6) 212; Defects in enamel due to cast iron, A (2) 50; Microphotographic study of free quartz in feldspar, A (3) 108; Tables to facilitate ceramic calculations, A (3) 116.
Mallory, H. C. Thermostatic valve mechanism, P (12) 598.
Malloy, J. J. See Fagan, J. T.
Malony, R. A. Manufacture of refractory shapes, A (9) 386.
Mambourg, N. Sheet-drawing apparatus, P (11) 511.
Manion, L. W. Muffle furnace, P (1) 10.
Mano, N. See Yanaka, R.
Manschke, R. Low-temperature carbonization in connection with steam boilers and other furnaces, A (7) 312.
Mantle, G. D. Glass furnace, P (11), 510.
Marjanovic, V. Quantitative determination of sulphates in form of barium sulphate, A (8) 359.
Marks, A. Magnesite refractory and method of making, P (4) 151; Refractory materials, P (3) 108.
Marks, E. C. R. Apparatus for cleansing air and gases, P (12) 601; Method of making refractory articles, P (1) 27.
Marshall, A. E. Glass factory in days of Nebuchadnezzar, A (5) 170.
Martell, P. Gypsum preparation and uses, A (8) 322.
Martens, J. H. C. Pre-Cambrian rocks in northern Quebec, A (8) 358.
Martin, E. Aluminous cements, P (7) 264; Determination of free alumina in bauxite, A (5) 192;

Ferrous and aluminous cements; hydraulic compounds, A (1) 7.
Martin, G. Refractory lining of rotary kiln, A (8) 346; Refractory linings for cement kilns, A (9) 384; Researches on the theory of fine grinding; II. Pt. VI; Diameters of irregularly-shaped crushed sand particles, A (9) 401; Pt. VII. Efficiency of grinding machines and grinding media with special reference to ball and tube mills, A (10) 483; Pt. VIII. Variation in specific gravity of quartz sand on prolonged grinding A (10) 483.
Martin, G., Bowes, E. A., Coleman, E. H., and Littlewood, T. H. Researches on theory of fine grinding, Pt. V, A (3) 121.
Martin, G. and Watson, W. Researches on theory of fine grinding, Pt. IV, A (3) 120.
Martin, H. S. See Chance Bros., Ltd.
Martin, H. S. See Gell, P. V. W.
Martin, J. C., Jr. Brick die, P (8) 343.
Martin, J. P Human element in brick making, A (2) 86.
Martin, L. C. (Optical Glass) Progress in optics, A (6) 217.
Masuda, M. See Kôzu, S.
Matejka, J. Preparation of a Czech ceramic terminology, A (10) 473.
Mathers, F. C. Patents process for making dolomitic lime plastic, A (1) 6.
Mathers, F. C. and Hardy, R. L. Production by carbonation and addition of sulphates of plastic materials having initial quick set, P (1) 8.
Mathers, F. C. See Briscoe, H. T.
Mathiasen, O. E. Firing terra cotta in open kiln, A (12) 591.
Matsui, M. Caustification of sodium carbonate by ferric oxide. (8th rept.); thermal dissociation of sodium carbonate in presence of ferric oxide; some empirical dissociation pressure equations, A (10) 470; (9th rept.), supplemental calculations on thermal dissociation of Na_2CO_3 in presence of Fe_2O_3, A (10) 470.
Matsui, M. and Hayashi, K. Caustification o sodium carbonate by ferric oxide. (7th rept.); dissociation pressure of Na_2CO_3 in presence of Fe_2O_3. (Expt. II), A (10) 470; Caustification of sodium carbonate by ferric oxide (10th report), A (12) 616.
Matsui, M. and Sakamaki, T. Caustification of sodium carbonate by ferric oxide. (6th rept.); Heat of formation of sodium ferrite, (Expt. I), A (10) 469.
Matsunaga, F. Process of manufacturing building material, P (11) 501.
Mattson, S. See Anderson, M. S.
Mauder, B. Development of glass decoration, A (8) 321; Varieties of glass painting, A (7) 256; The wine glass; romantic history and development through centuries, A (12) 625.
Mauri, A. Determination of acidity or alkalinity of different glasses by quinhydrone ionometer of Prof. Lüers, A (10) 479; Ionometric measurement of acidity and alkalinity of glasses by means of Lüers quinhydrone potentiometer, A (10) 436.
Mauser, H. D. Report of Chemische Raad van Nederland and of Nederlandsche Vereeniging van Aardewerk Fabrikanten, A (1) 41.
Mausz, G. Clinker industry, A (7) 284.
Mautner, P. See Ruff, O.
Mauve, L. See Rieke, R.
Mawhinney, M. H. Effect of height of stack on furnace operation, A (7) 298; Selection of proper furnace insulation, A (6) 236.
Mawson, D. Sillimanite: Torrnes Gorge, S. Australia, A (4) 149.
Maxymowicz, W. See Moser, L.
May, W. J. Refractory material for furnaces used in fusing metals, A (11) 528; Refractory materials for metal furnaces, A (9) 385.
Maynard, J. E. Clays of Lake Agassis Basin (Canada), A (1) 35.
Maynard, P. Method of making brick and other fired-clay products, P (2) 63.
McAfee, W. K. Inspection protects quality of ware, A (9) 412.
McBain, J. W. and Ferguson, J. Nature of influence of humidity changes upon composition of building materials, A (6) 221.
McBride, G. A. Composition for cleaning and polishing glass, P (12) 581.
McCaffery, R. S., Oesterle, J. F., and Schapiro, L. Composition of iron blast-furnace slags, A (6) 239.
McCallie, S. W. Clay and clay products in Ga. A (5) 188.
McCann, F. A. Drying at Pacific Clay Products, A (1) 18.
McCaughey, W. J. Oxychloride cement and process of making, P (9) 371.
McConnell, R. G. Clays, A (6) 238.
McCune, H. R. Brick machine, P (7) 285.
McDonald, E. L. Burning mid-western coals, A (12) 602.
McDonald, F. W. and Reehl, D. L. Automatic ware-making machine, P (1) 31.
McDougall, R. Continuous furnace enamels 500,000 pieces per month, A (4) 133.
McDowell, S. J. Effect of various sodium silicates and other electrolytes on clay slips, A (6) 228; Laboratory study of slag erosion, A (9) 385; Suggestions regarding use of sodium silicate in casting clay ware, A (2) 69;
McDowell, S. J. and Vachuska E. J. Effect of calcined cyanite in porcelain bodies, A (3) 109.
McDowell, S. J. See Navias, L.
McGeorge, W. T. See Burgess, P. S.
McGrew, P. C. See Miller, D. G.
McIntosh, A. M. Process for making and molding hard porcelain, P (7) 296.
McKay, H. C. Visual analysis of sand, A (9) 402.
McKee, G. W. Temperature regulator for furnaces, etc., P (12) 600.
McLachlan, T. See Jones, J. M.
McLaughlin, J. Method and means for baking brick, P (8) 358.
McMahon, J. F. Texture of ceramic materials, A (2) 74.
McMillan, F. R. Density of concrete and water-cement ratio, A (6) 206.
McMillan, L. B. Heat transfer through insulation, A (6) 234.
McNish, A. Machine for making bottles or other articles of glass, P (7) 279.
McNish, A. and Automatic Bottle Machine Corp, Ltd. Glass-blowing apparatus of suction-gathering type, P (12) 583.
McSwiney, D. J. Flow of glass in tanks, A (10) 433; Observations on heat transfer in furnaces, A (3) 96, A (4) 137; Strain and hot-water test for bottles, A (1) 13.
McVay, T. N. Determination of mullite in porcelain body, A (3) 109.
McVay, T. N. See Parmelee, C. W.
McVicker, G. G. Experiments with furnace-slag prevention, A (9) 382.
Meade, R. K. Rotary kilns vs. shaft kilns for lime burning, A (7) 258; A (8) 323.
Meehan, P. A. Kiln car, P (11) 537, 538.
Meesz, H. Glasses for protection against harmful rays, A (10) 434.
Mehling, C. Enamelers save with electricity, A (6) 213.
Mehmke, R. L. Use of brick in modern churches, A (10) 443.
Melhase, J. Mining bentonite in Calif., A (1) 35.
van Melle, F. A. See Jaeger, F. M.
Mellersh-Jackson, W. J. Construction of fireless leer, P (12) 583.
Mellor, J. W. Comprehensive Treatise on Inorganic and Theoretical Chemistry, Vol. VI, Carbon (Part II) Silicates, B (4) 159; Pottery, P (10) 453.
Melzer, H. Antimony white enamel, A (12) 569.
Mena, R. Aztec calendar stone, A (12) 558.
Menzel, C. A. Fire and load test equipment for bearing walls, A (1) 17.
Merian, F. Cleaning bottoms of crucibles or clay pots, P (3) 102.
Merkel, F. Fundamentals of Heat Conductivity, B (8) 357.

Mernagh, L. R. Antimony as constituent of enamels, A (2) 50.
Merritt, G. E. Thermal expansion of some fused oxides as refractories, A (1) 27, A (3) 105.
Metzgar, H. C. Method and apparatus for treating sheet glass, P (2) 57.
Meulen, H. T. Permanganate value of clays, A (12) 619.
Meyer, F. Glass manufacture, P (12) 585.
Meyer, P. R. Utilization of waste gases from glass tank, A (3) 113.
Meyers, H. H. Method of treating alunite, P (3) 107.
Meyers, S. E. Apparatus for burning oil, P (12) 610.
Meyers, W. M. Ceramic raw materials in the west, A (9) 400; Use of flocculating reagents for recovery of fine mica, A (9) 393.
Meyers, W. M. See Bowles, O.
Michaelis, L. Hydrogen-ion Concentration, B (1) 38.
Michell, H. Glass industry in Canada, A (3) 101.
Middendorf, D. L. Apparatus for manufacture of glass ware, P (12) 579
Miehr, W., Immke, H., and Kratzert, J. Measurement of high temperatures in carbon-resistance furnace, A (11) 541.
Miehr, W., Kratzert, J., and Immke, H. Consideration of resistance to action of slags shown by refractory materials, A (10) 449; Importance of thermal expansion in valuation of refractory material, A (10) 449.
Miers, H. A. Crystallization, A (9) 404.
Miething, H. The Holborn and Kurlbaum disappearing filament pyrometer, A (7) 296.
Milani, G. Ceramic schools in Italy, A (9) 367.
da Mileto, T. Effect of electromotive series of metals in ceramics, A (5) 165.
Miller, D. Glass perfected in Germany to withstand heat and acid, A (6) 215.
Miller, D. G. and McGrew, P. C. Determination of pressure distribution on circular pipe tested in A.S.T.M. standard sand bearings, A (4) 145.
Miller, F. R. See Lents, J. M.
Miller, L. B. Method of molding silica; P (7) 290; Molding silica, P (8) 341; Process of producing vitreous silica, P (7) 291.
Miller, L. H. 90% of tile market lost, A (5) 175.
Miller, W. A. Silica brick gun, P (4) 151.
Miller, W. J. Apparatus for producing mold charges of molten glass, P (5) 174, P (12) 580, 581; Glass-fabricating apparatus, P (8) 338; Process and apparatus for feeding glass, P (7) 282.
Miller, W. T. W. Gradation of machine-broken stone, A (6) 231, A (7) 297, A (9) 370.
Milligan, L. H. New spiral gas-washing bottle, A (6) 248.
Milligan, L. H. and Quick, C. H. Abrasive article and method of manufacturing, P (9) 367.
Milne, J. See Laurie, A. P.
Milner, H. B. Supplement to Introduction to Sedimentary Petrography, B (7) 302.
Milomi, G. Italian refractory clays, A (9) 383.
Mimitani, S. Method of coloring earthen ware, P (11) 495.
Mindt, W. Proposed method of testing serviceability of loose grinding materials, A (8) 316.
Minot, A. S. See Aub, J. C.
Minter, M. M. Kilns, P (12) 610.
Miskella, W. J. Spraying method of applying japan, A (7) 297.
Mississippi Glass Co. Annealing glass, P (12) 582.
Misumi, Y. Process of preparing titanium oxide, P (11) 544.
Mitchell, H. J. and Twells, R. How much does dirt collect from dividends, A (9) 411.
Mitchell, S. R. Coöperative checking of cement testing, A (4) 131.
Mitchell, T. A. Method of treating alunite, P (7) 290.
Mitsubishi Co., The. Method of manufacturing water-proofing agent for cement, P (11) 547.
Mitsui Kozan Co., The. Improvement in cement-rotary kiln, P (11) 501.
Miyazaki, I. Method of preparing lime for plaster, P (11) 500.
Modes, C. H. Problems of glass industry discussed, A (3) 99; Problems glass men want solved, A (3) 99.
Moeller, A. See Cornwell, V. O.
Moldenke, R. Process of treating aluminous ores, P (10) 451.
Moles, E. See Crespi, M
Molitor, H. Soda according to Solvay process, A (9) 401.
Moll, H. Checkerwork brick, P (2) 67.
Moller, R. Mechanical stokers for gas producers, A (5) 186, A (7) 299.
Mond, A. L. Alumina, P (11) 531.
Monro, W. L. Method and apparatus for annealing and cooling sheet glass, P (11) 511.
Montgomery, E. T. See Jeffery, J. A.
Montgomery, G. L. Collection and recovery of dust by mechanical means, A (9) 393; Manufactured city gas as industrial fuel, A (10) 458.
Montgomery, R. J. Problems of glass industry presented before Montreal Society of Chemical Industry, A (2) 55.
Moore, N. H. Old Glass: European and American, B (3) 93.
Moorhead, T. C. Fuel economy in glass works practice, A (10) 433.
Moorhead, T. V. H. See Herrold, R. P.
Morey, G. W. Developments in glass technology during recent years, A (7) 267; Recent glass developments, A (8) 330.
Morey, G. W. and Bowen, N. L. Decomposition of glass by water at high temperatures, A (10) 428; Further aspects of decomposition of glass in hydrothermal tests, A (12) 570.
Morey, G. W. See Wyckoff, R. W. G.
Morgan Construction Co. Elimination of reversing valves in regenerative furnaces, P (12) 612.
Morgan Crucible Co. and Speirs, C. W. Kilns and other heat treatment furnaces, P (2) 73.
Morioka, T. See Yamaguchi, Y.
Moriyasu, S. See Tabata, K.
Morris, G. D. Kiln car, P (12) 606; Refractory body, P (12) 590.
Morrison, J. Glass-feeding apparatus, P (2) 57; Glass, the incomparable; glass, the mysterious, A (6) 216.
Morrison, J. E. See Stansfield, A.
Morse, A. W. Oil-fired kiln, P (9) 398.
Morton, W. A. Development of unit leer, A (10) 433.
Moser, L. and Maxymowicz, W. Experiences in use of porcelain filtering crucible in gravimetric analysis, A (9) 392.
Moulin, A. and Berger, E. Zinc sulphide, sodium zincate, zinc oxide, and lithopone, P (10) 481.
Mourey, G. Lalique's glass ware, A (2) 49.
Moyer, M. L. Clays, A (8) 363
Mulholland, V. Apparatus for annealing glass ware, P (6) 220; Guiding device for molten glass, P (5) 173; Method of and apparatus for conveying plastic glass, P (10) 438.
Muller, H. Fifty years of cement industry, A (8) 325.
Muller. See Keppeler.
Muller-Hauff, A. Qualitative and economic importance of acid-electric steel, A (9) 387.
Mundt, E. and Volker, H. History of gypsum industry, A (8) 362.
Munro, A. M. Microphotography of pigments, A (3) 117; Rubber linings, A (5) 184.
Munro, W. L. Pittsburgh and glass industry, A (6) 215.
Munzing, E. See Tubandt, C.
Murawlew, L. Dependence of fusion point of clay on chemical composition, A (11) 540.
Murray, A. L. Lead Poisoning in Mining of Lead in Utah, B (10) 484.
Murray, W. S. Oil- or gas-fired (pottery) kilns, P (2) 74.
Muthmann, W. and Hermanhof, H. Investigation of porcelain colors: phosphate and titanate colors, A (8) 321.
Myers, J. E. See Hedges, H. S.
Myers, P. B. and Gilligan, G. M. Mechanism of buffer action in soils, A (12) 618.

Myers, W. M. Calcining of small limestones A (1) 7; Mica, A (12) 612.
Mylius, W. Iodoeosin test on powdered glass, A (9) 378.

Nagashima, F. Tank furnace for opalescent glass, P (11) 515.
Nagata, T. Method of manufacturing brick, P (11) 522.
Nagatsuka, R. Process of manufacturing porous emery wheel, P (11) 490.
Naito, S. See Naito, T.
Naito, T. and S. Roofing-tile kiln, P (11) 538.
Nakahara, M. See Nakamura, K.
Nakahara, S. See Nakamura, K.
Nakajima, S. Process of decorating pottery with photographic design, P (11) 495.
Nakamura, K. and Shimomura, A. Relative ignition temperature of solid fuels, A (7) 299.
Nakamura, K., Tamura, K. and Nakahara, M. Quick-hardening agent for cement, P (11) 503.
Nakamura, K., Tamura, K., and Nakahara, S. Process of manufacturing water-proofing agent for cement, P (11) 501.
Nakamura, M. Method of decorating glass or other substances, P (11) 496.
Nakamura, O. Pseudo pottery of magnesia cement, P (11) 503.
Nakamura, T. Method of treating glass for clinical thermometer, P (11) 515.
Nakamura, Y. Process of manufacturing glass ware with marble figure, P (11) 496.
Narcund, K. S. and Watson, H. E. Reactions of chromates at high temperatures; II, System lime-chromium oxide-oxygen, A (10) 475.
Nash, A. W. Synthetic fuel, A (2) 71.
Nash, H. S. Design in glassware industry, A (12) 571.
Naske, C. Kiln for firing cement, P (6) 237; Simplification of production methods, A (10) 484.
Nathusius, H. American electric enameling furnace; Hagan system, A (10) 428.
National Research Council. Transactions of American Geophysical Union 1926, B (7) 302.
Nave, G. M. Porosity of fire brick, A (8) 348.
Navias, L. Impact and static transverse strength of wet-process electrical porcelain, A (4) 151.
Navias, L. and McDowell, S. J. Discussion on "Effect of calcined cyanite in porcelain bodies," A (7) 291.
Nawrath, A. Brick kilns and development in 50 years, A (6) 233.
Neenan, J. M. Glass furnace, P (11) 512.
Nekritsch, N. See Budnikoff, P. P.
Nelson, E. G., Jr. Delivery apparatus for molten glass, P (12) 579.
Netzsch, G. New conveyers for ceramic plants, A (9) 394.
Neue Glasindustrie-Ges. Glass manufacture; rolling, P (10) 441.
Neuhauss, H. See Wever, F.
Neuman, F. Preparation of hand-molded tile in Greece, A (10) 452.
Neumann, B. Color and composition of antique glasses, A (5) 165; German glass mosaics, A (3) 91; Production of sulphurous acid from gypsum, A (10) 471.
Neumann, B. and Fischer, W. Salt glaze, A (12) 586.
Neumann, B. and Kober, S. Contribution to knowledge of clay substance, A (7) 311.
Neumann, B. and Reinsch, O. Solution of bauxite in caustic soda without pressure, A (7) 308, A (10) 471.
Neumann, D. B. Composition of antique glasses, A (8) 330.
Neumann, G. See Kühn, P.
Neuss, O. Flowability of fat highly refractory clays, A (11) 528.
Neville, H. A. Setting of litharge-glycerine cement, A (1) 6.
Nichols, J. B. and Liebe, H. C. Centrifugal method for determination of distribution of size of particle of suspended material, A (4) 158.
Nicholls, P. Status of heat-transmission data and knowledge in refractory field, A (2) 66.
Nicholson, J. B. Apparatus for scarifying plastic-clay columns, P (8) 344.
Niece, W. C. Talk on glass, A (10) 435.
Nikogossian, C. S. See Ginzberg, A. S.
Nimtz, W. A. See Iding, M. P.
Nippon Gaishi Co., The. Improvement in insulator, P (11) 535; Improvement in manufacture of insulator, P (11) 534; Method of fixing insulator, P (11) 535; Process of hardening cement in insulator, P (11) 535.
Nishikawa, K. Colloid chemistry of clays and kaolins, A (5) 191.
Nitzsche. Strength tests and mortar joints, A (11) 499.
Nitzschmann, R. Flame temperature of producer gas using preheated air and gas, A (10) 461
Nivling, W. A. Viscosimeters, P (12) 600.
Noel, C. Enameling metal articles, etc., P (7) 266.
Nold, H. E. Turning mine waste into profits, A (9) 410.
Nordell, C. H. Method of and apparatus for continuous softening of water by use of zeolites, P (2) 87.
Norton, F. H. New high temperature furnace controller, A (7) 296; Thermal conductivity of some refractories, A (3) 104.
Norton, L. M. Ceramics at the Sesquicentennial, A (2) 87.
Nose, T. Method of manufacturing building material, P (11) 547; Method of reinforcing concrete and other silicate ware, P (11) 547; Water-proof concrete or mortar, P (11) 501.
Nozawa, F. Liquid for preventing dimness of glass surface due to steam or water drops, P (11) 516.
Nutting, P. G. Adsorptive force of silica for water, A (9) 405.
Nyswander, R. E. and Lind, S. C. Measurements of thermo-phosphorescence of glass produced by radium emanation, A (8) 334.

Oakes, G. W. Apparatus for applying abrasive to plate glass grinding mechanism, P (4) 127.
Oakley, H. B. Anomalous flocculation of clay, A (3) 116.
Oakley, H. B. See Joseph, A. F.
Oakley, P. D. See Siemens and English Electric Lamp Co., Ltd.
Odelberg, A. S. W. Electric kilns at Gustavsberg works, A (10) 460; Electric tunnel kiln, A (5) 185; Firing ceramic ware in electrically heated tunnel kiln, A (9) 398; Grinding quartz and flint in Dorr mills for manufacture of porcelain, A (12) 593.
Oden, S. and Winckler, N. Sedimentation analysis, A (10) 480.
Odom, E. R. Carrying-in device for leers, P (5) 173.
Oesterle, J. F. See McCaffery, R. S.
Off, E. P. Artificial teeth, P (12) 594.
Ogden, D. P. Brick-forming mechanism, P (3) 104.
Ogden, E. P. See Bole, G. A.
Ogilvie, A. Sifting plant, A (1) 31.
Oinouye, Y. Porcelain clay, A (3) 115.
Okazaki, S. Method of manufacturing porous glass, P (11) 515.
Olenew, K. F. Thermal calculations involved in designing kiln for firing brick, A (7) 298.
Olson, H. M. Oxychloride cement and method of making, P (5) 168.
Omundson, O. O. Brick industry in Canada, A (4) 146.
Onderdonk, J. S. Ferro-concrete style, A (9) 367.
O'Neill, F. Adjustable glass feeder, P (2) 60; Glass-pressing and blowing machine, P (11) 513; Press-ware manufacture, P (2) 61.
Onnes, H. K. See van Agt, F.
Ono, K. Method of manufacturing glass with pearly luster, P (11) 495.
Orqualin. Glazing ceramic bodies, P (6) 230.
Orth, H. S. Producer gas in connection with firing fire brick, A (10) 458.
Ortmaier, P. Standardization of factory for making sewer pipe and conduits of ceramic materials, A (12) 586.
Orton, E., Jr. and Krehbiel, J. F. Convenient platinum-wound resistance furnace, A (7) 296.

Osaka Togyo Co., The. Improvement in joints of porcelain insulator, P (11) 535; Method of glazing pottery, P (11) 496; Method of manufacturing decorative architectural pottery, P (11) 532.
Osborne, A. G. See Ayres, S. H.
O'Shaughnessy, T. A. Method of making refractory glass, P (2) 59.
Ostman. Valuation of clay and loam deposits, A (10) 468.
Ostwald, W., Wolski, P., and Kuhn, A. Practical Colloid Chemistry, B (1) 38.
Ota, S. Fired cement ware resembling pottery, P (11) 503.
Otremba, A. Microscopic investigation of opacity phenomena in enamel frits, A (7) 265; Studies on volatilization of cryolite, A (10) 471; Volatilization of sodium fluosilicate, A (7) 275.
Otsuka, S. Manufacturing bracelet from bubble glass, P (11) 495; Manufacturing glass bracelet with silky luster, P (11) 496.
Ott, L. See Spencer, C. D.
Otto, J. See Holborn, L.
Ouellette, E. J. Means for feeding ore elevators, P (3) 111.
Owen, W. Apparatus for making reinforced glass tile, P (12) 582.
Owens, M. J. Apparatus for guiding and conveying hot glass ware, P (7) 281; Bottle-transfer mechanism, P (7) 281; Drawing sheet glass, P (3) 102.

P. C. Use of lean (poured) concrete in construction of houses, A (4) 129.
P. M. Production of artificial mother-of-pearl materials, A (8) 362.
Page, H. J. Soils in 1926, A (6) 246.
Palumbo, E. Effect of permeability of cements on durability of reinforced concrete tanks, A (12) 564.
Paoloni, A. Electric furnace for firing porcelain and other ceramic products, A (5) 186.
Pape, W. Rapid determination of total alkalis, alumina, and iron in glasses and ores by means of hydrochloric acid, A (9) 402.
Parentani, F. Process and apparatus for purifying clay, etc., P (2) 88.
Parker, H. C. Progress of electrometric control methods in industry, A (9) 393.
Parker, L. D. See Vickers, Ltd.
Parker, L. T. Developing new processes, A (1) 40; Protecting ideas and inventions, A (2) 87; Watch your trade-mark, A (6) 249; When you design a new product, A (1) 40.
Parker, M. E. Maintenance of detergent solutions used in bottle washing, A (1) 14.
Parker, R. G. and Jackman, D. N. Measurement of mechanical power absorbed by driven machines, A (3) 121.
Parkert, O. W. Production of colored glass Christmas tree ornaments, A (8) 320.
Parkin, M. and Turner, W. E. S. Influence of moisture on mixing of batches for potash-lead oxide-silica glasses, A (3) 96.
Parkin, M. See Firth, E. M.
Parkinson, J. C. Control apparatus for leers, P (8) 340.
Parkinson, J. C. See Gelstharp, F.
Parks, G. S. and Huffman, H. M. Glass as a 4th state of matter, A (3) 119.
Parks, G. S. and Kelley, K. K. Heat capacity of calcium silicate, A (1) 36.
Parmelee, C. W. and McVay, T. N. Investigation of some ball and china clays, A (9) 391.
Parmelee, C. W. and Westman, A. E. R. Effect of steam on transverse strength of fireclay bricks, A (6) 223.
Parmelee, C. W. See Talwalkar, T. W.
Parodi, A. Apparatus for cleaning potteries, etc., P (7) 295.
Parrish, J. Measurement and industrial importance of particle size, A (12) 620.
Parsons, A. L. See Walker, T. L.
Patai, E. See Selényi, P.
Paterson, C. C. Physical studies in lamp and valve manufacture, A (7) 273.
Patton, B. H. See Hurley, R. D.
Pauli, W. and Valko. General colloid chemistry; XIX, constitution of silicic acid sols, 2, A (10) 476.
Pauls, J. T. See Teller L. W.
Paulson, W. Detecting glass of inferior quality, A (8) 329.
Paxton, M. Ancient art reproduced in cement, A (4) 127.
Payant, F. N. C. pottery, A (12) 555.
Peale, R. Conveyer mechanism, P (12) 598.
Pearce, J. W. System for mining, P (9) 414.
Pearson, B. M. Deterioration and failure of glass-works refractories, A (8) 347, A (10) 446, A (11) 530.
Peattie, H. L. and Brady, F. B. Laboratory flow meter all in glass, A (6) 247.
Peck, A. B. Rôle of ceramic petrographer, A (12) 624.
Peddle, C. J. Defects in Glass, BR (10) 485.
Pederson, H. Process of manufacturing aluminum hydroxide, P (4) 159.
Peer, A. R. Care of filter-press cloths, A (12) 595; Construction, making, and care of filter-press cloths, A (11) 536.
Peiler, K. E. Apparatus for feeding molten glass, P (6) 220; Apparatus for separating molten glass into mold charges, P (8) 338; Fabricating glass ware in suction-fed molds, P (7) 279; Feeding molten glass, P (8) 339; Leer conveyer, P (12) 578; Method of and apparatus for shaping molten glass, P (4) 143; Timing mechanism for glass feeders, P (2) 60.
Pendergast, W. L. See Heindl, R. A.
Pepin, A. Lightweight artificial stone, P (9) 373.
Percival, G. A. See Edison Swan Electric Co., Ltd.
Perpeet, W. New method of firing, A (2) 72.
Pervier, W. A. See Bridge, W. G.
Peters, M. F. See Fairchild, C. O.
Peterson, A. A. See Jordan, L.
Peterson, C. F. Molding with binders of glyptal glass, P (7) 296.
Petrenko, S. N. Relationships between Rockwell and Brinell numbers, A (8) 360.
Pfahl, K. Modern dolomite kilns, A (11) 537.
Pfeiffer, E. See Endell, K.
Phelon, A. E. See Smith, E. L.
Phelps, L. H. See Jordan, L.
Phelps, S. M. Effect of water content and pressure of repressing on porosity of stiff-mud brick, A (8) 342, A (10) 447; Elementary account of chemical analysis of refractory materials, A (12) 616; Nomenclature for refractories, A (11) 523; Studies of effect of chlorine sulphur dioxide, and carbon monoxide upon various refractories, A (11) 524; Study of shrinkage of diaspor clays, I, A (1) 20.
Phelps, S. M. and Robertson, H. F. Variation of size occurring in clay and silica refractories, A (1) 22.
Phillips, A. See Grundy, H. V.
Phillips, S. A. Responsibilities of management, A (11) 544.
Phillips, S. O. Experience, help or hindrance, A (10) 481.
Phoenix, A. E. Heat losses in periodic kiln, A (6) 234; Insulation of electrically heated equipment, A (2) 70.
Phragmen, G. Solid solution and chemical compounds, A (6) 246.
Piepmeyer, M. See Eisfelder, H.
Pike, R. D. Method of manufacturing oil-gas, P (12) 608.
Pillai, D. S. Effect of zinc oxide on coloring properties of chromium, cobalt, and iron oxides, A (3) 91.
Pink, H. Drawing of glass tube and rod, A (8) 330.
Pinse, H. Rapid determination of lime in limestone, slag, raw cement mix, clinker, and cement, A (12) 562.
Piron, J. See Lacore, A.
Piwowarsky, E. See Wuster, A.
Planck, M. Treatise on Thermodynamics, B (8) 361.
Platzman, C. R. Development of German cement industry, A (8) 323; Properties and testing of cement colors, A (11) 499.

Plusch, H. A. Manufacture of grinding wheels, A (1) 2.
Pogue, R. B. Refractory lining, P (8) 349.
Pohl, H. Rapid cost determination combined with constant control of operation in ceramic and mining industries, BR (1) 45.
Pohl, W. Burning of lime in tunnel kiln, A (10) 422; Construction and operation of tunnel kilns, A (5) 186.
Pohorzeleck, M. Comparison of clay plants, A (7) 283; Methods of purifying materials containing kaolin, A (7) 292.
Polak, V. Experiments on determination of radiation in Siemens-Martin furnace, A (12) 606.
Pollak, F. and Ripper, K. Elastic glass; origin and applications, A (8) 328.
Polysius, G. Fused cement, P (8) 326; Preheating slurry, P (9) 373.
Pond, T. C. Brick making, P (3) 107.
Ponomareff, J. F. Glass manufacturing developments in Russia, A (5) 169; Investigation of glassy state by forced crystallization, A (6) 213, A (9) 375; Study of vitreous state through enforced crystallization, A (1) 37.
Pontoppidan, C. Manufacture of Portland cement, P (5) 168.
Popp, G. See Haupt, H.
Porcherot, R. Furnace bricks, P (10) 451.
Porter, F., Bardwell, D. C., and Lind, S. C. All-glass circulating pump for glasses, A (8) 332.
Poste, E. P. Enameling plant at Chattanooga, Tenn., A (5) 169; Report of Enamel Division Committee on Standards 1926–27, A (11) 503.
Poston, E. V. Apparatus for and method of simultaneously texturing both ends of bricks, P (11) 518; Process of texturing brick, P (11) 519; Process of veneering brick, P (11) 519.
Potter, A. A. Research relations between colleges and industry, A (3) 122.
Power, H. R. Waterproof abrasive P (4) 126.
Pralle, E. Kaolin deposits of Silesia, A (6) 239.
Prausnitz, P. H. Jena glass, A (5) 171.
Prescott, C. H., Jr. Equilibrium between zirconium oxide and carbon; their reaction products at incandescent temperatures, A (4) 156.
Prescott, W. E. See Baker, G. R.
Pressler, E. R. See Geller, R. F.
Preston, F. W. Annealing of glass, A (4) 138; Nature of polishing operation, A (4) 139; Note on stress systems and photoelastic phenomena, A (9) 375; Study of rupture of glass, A (3) 97, A (9) 374; Spalling of bricks, A (1) 17; Theory and design of plate-glass polishing machines, A (10) 431.
Proctor, J. Continuous kiln for firing brick, etc., P (12) 610.
Prouty, T. C. and Prouty, W. O. Ceramic process and product, P (8) 353; Tunnel kiln, P (3) 114.
Prouty, W. B. Air separation of clay, A (4) 153.
Prouty, W. O. See Prouty, T. C.
Prussing, C. Changes in viscosity and water content of cement slurry, A (6) 209.
Pukall, W. Drying of ceramic ware, A (1) 42.
Pupin, M. L. What is light? A (1) 36.
Purdy, R. C. Report of General Secretary, A (6) 482.
van der Pyl, E. Safety-tread unit, P (5) 162.
Pyser, E. R. New glass of inestimable value to all humanity, A (11) 508.

Quartz et Silice. Manufacture of ceramic ware or materials, P (12) 595.
Quick, C. H. See Milligan, L. H.

Rackham, B. English porcelain: Wallace Elliot's collection of Bow and Lowestoft, A (10) 421; Josiah Wedgwood and William Blake, A (3) 93.
Raeder, B. Electric melting of glass, A (5) 171.
Raeder, J. K. B. Electric furnaces (for glass), P (5) 174.
Raggatt, H. Clays, A (2) 74.
Ralston, R. Early republican decorations on Chinese Lowestoft, A (11) 492.
Rammler, E. See Rosin, P.
Ramsin, L. K. Refractory materials in connection with construction of boiler settings, A (10) 448.
Rancke, C. Casting ware, A (9) 368.
Rankin, C. H. Apparatus for controlling flow of molten glass through discharge aperture, P (8) 339.
Ransburg, H. J. Decorated glass ware and process of making, P (2) 57.
Raschevsky, N. v. Theory of heat of fusion, A (5) 193.
Rasser, E. O. Enamel colors, A (4) 133.
Rastall, R. H. Physico-chemical Geology, B (5) 189.
Rauch, F. T. H. Refractories, A (11) 528.
Ray, W. H. Forming apparatus, P (12) 596.
Read, H. English Stained Glass, B (3) 93.
Read, H. L. City gas, valuable and important, A (6) 235; Gas-fired enameling furnaces for cast-iron, A (2) 50.
Read, J. Natural sources of energy in Australia, A (10) 460.
Reagan, G. D. Hollow brick or building tile and wall structure, P (2) 63; Hollow building unit, P (9) 381; Reinforced hollow fracturable building unit, P (9) 381.
Reams, J. A. Process and apparatus for firing clay products, P (10) 465.
Reavell, J. A. Fluid heat transmission for high temperatures in industrial processes, A (2) 70.
Redfern, F. New British bottle-blowing machine, A (11) 508; New British 15-arm automatic suction bottle machine, A (10) 431.
Redslob, E. Place of ceramics in artistic life of today, A (10) 421.
Reece, J. A. Drawing sheet glass, P (4) 144, P (10) 440; Method and apparatus for making wire glass, P (11) 512.
Reed, C. G. Metropolitan designs new product for sewage filtering, A (5) 175.
Reeds, C. A. Clay layers in N. J. and the ice sheet, A (12) 613.
Reehl, D. L. See McDonald, F. W.
Rees, W. J. Further note on influence of iron oxide in promoting inversion of silica, A (9) 383; Note on some cases of "spalling" in silica-gas retorts, A (9) 384; Notes on analysis of refractories, A (10) 445.
Rees, W. J. See Hugill, W.
Reeve, C. S. Plastic composition, P (12) 627.
Reeves, W. A. See Tucker, O. M.
Reichau, K. H. Contribution to better knowledge of high tension porcelain, A (1) 30.
Reid, T. A. Electric furnace resistor, P (12) 599.
Reiner, S. Laboratory electric furnace for temperatures up to 1400°, A (10) 461.
Reinsch, O. See Neumann, B.
von Reis, L. Method and device for manufacturing plate glass, P (5) 174; Sheet-glass production, P (12) 582.
Remington, J. S. Colloidal earth in soap making, A (9) 414.
Renault, P. Casting of clays: application to art and industry, A (8) 350, A (11) 533.
Rengade. Franco-Belgian Association for Testing Materials, A (1) 5.
Renn, H. V. E. M. Sources of error in glass volumetric apparatus, A (2) 52.
Reznikoff, P. See Aub, J. C.
Rhead, F. H. America's lack of original ceramic designs and schools catering to artistic fields in clay working industries, A (6) 205; Notes on shape construction, A (7) 253, A (9) 368; Suggestions on ceramic art education, A (1) 4.
Rhoads, T. H. Process of drying tank blocks, P (6) 227.
Rhoades, W. A. Method and means for skimming glass, P (8) 341.
Rhode, I. Inversion of quartz; crystal structure, A (12) 620.
Rice, G. Changing color world, A (7) 255.
Rice, G. E. and Simmons, C. L. Combination treating tank and dry kiln, P (12) 607.
Rice, W. E. See Bole, G. A.
Rice, W. E. See Sherman, R. A.
Rich, E. A., Jr. Sand-blast apparatus, P (12) 597.
Richards, C. R. Report of commission appointed by Secretary of Commerce to report on International Exposition of Modern Decorative and Industrial Art in Paris, 1925, A (3) 91.

Richards, E. Corrosion and erosion of refractories, A (9) 389.
Richardson, W. D. Application of tunnel kiln, A (6) 233; Method and apparatus for firing clay ware, P (7) 300; Possibilities of tunnel kiln for sewer pipe, A (10) 458; Tunnel kilns for firing fire brick, A (1) 33.
Richarz, H. Newer measurements and observations of automatic furnace for burning cement, A (12) 565; Rapid determination of lime in cement and materials containing blast-furnace slag, A (12) 565.
Richter, G. M. A. Recent accessions in the classical, department, A (3) 92; Two theatre vases, A (5) 163; Vases and bronzes, recent accessions in the classical department, A (5) 163.
Riddick, J. Crucible linings free from carbon, A (11) 527.
Riddle, F. H. Porcelain, P (8) 353.
Riddle, F. H. and Twells, R. Standardization and plant control as applied to body making, A (6) 228.
Ridge, H. M. Note on modern clayworking machinery as used on Continent, A (10) 454.
Riedel, L. See Zschimmer, E.
Riedig, F. Winning of clays with cable excavator, A (4) 145.
Rieke, R. Ceramic chemistry, A (4) 160; Simple ceramic test methods, A (11) 546.
Rieke, R. and Mauve, L. Application of "Edelweiss" pegmatites of Weihammer, A (12) 612; Mechanical testing of table ware, A (7) 292.
Riers, J. F. Gems, P (10) 481.
Ries, E. D. and Clark, L. E. Analysis of sulphur dioxide in presence of excess air, A (7) 309.
Ries, H. Clays, Their Occurrence, Properties, and Uses, BR (10) 485.
Rieth, H. Artificial double refraction caused by pressure on glass cylinder, A (1) 11.
Rinne, F. X-ray study of limestone calcination, A (9) 370 A (10) 421.
Ripley, D. A. Method of and apparatus for forming glass articles, P (2) 60.
Ripper, K. See Pollak, F.
Rishkevich, E. Graphit: Charakteristik. Erzeugung, Verarbeitung, und Verwendung, B (3) 107.
Roberts, J. K. See Kaye, G. W. C.
Roberts, W. H. Standardization in chemical analysis, A (4) 157.
Robertson, H. F. See Phelps, S. M.
Robertson, H. M. Kiln truck, P (10) 464.
Robinson, C. J. See Robinson, T. and Son, Ltd.
Robinson, C. S. See Weber, A.
Robinson, P. L. See Briscoe, H. V. A.
Robinson, T. and Son, Ltd., Robinson, C. J., and W. N. Machinery for separating particles from air by centrifugal action (cyclone separators), P (12) 600.
Robinson, W. N. Manufacture of electrical refractories, A (10) 447.
Robinson, W. N. See Robinson, T. and Son, Ltd.
Robitschek, J. Chemical analysis of silicates, A (11) 541; Simple apparatus for determination of porosity of refractory products, A (11) 528.
Robson, J. T. and Hartford, F. M. Flashing and other unique developments in connection with modern tunnel kiln face brick plant, A (8) 342.
Rochow, W. F. Neutral refractory cement, P (1) 27.
Rocic, I. Building wall and block construction, P (12) 587.
Rodhe, O. Continuously-operating gas-analyzing apparatus, P (12) 624.
Rodman, C. J. Burner, P (12) 610.
Rodt, V. Analytical chemistry; its service in manufacture, study, and uses of Portland cement, A (12) 563.
Roemhild, H. E. Uranium in ceramics, A (3) 117, A (6) 205.
van Rogen, L. H. J. Chemical investigation of refractory materials, A (11) 527.
Rogers, B. W. Rubber as lining for grinding mills, A (7) 297; Rubber in rock products industries, A (4) 153.
Rogers, B. W. and Fritz, H. E. Rubber, effective material to resist corrosion and abrasion, A (2) 70.
Rogers, W. R. and Young, A. C. Clay products in Ontario in 1926, A (9) 400.
Rohn, W. Electric resistance muffle furnace, P (5) 187.
Rohrich, H. A. Glass-forming machine, P (1) 16.
Rohrwasser, F. Brown coal briquets for firing, A (2) 72.
Roirant, E. Process of collecting glass by suction, P (4) 142.
Rooksby, H. P. See Hyslop, J. F.
Ros, M. Future Swiss standards for cement binders in preparation of mortars, based on tests made by L. F. E. M., A (4) 129.
Rosbaud, P. Röntgenographic research on aluminum silicates, A (7) 303.
Rose, E. H. New study of grinding efficiency and relation to flotation practice, A (1) 40.
Rosin, P. Heat-capacity-temperature diagram of combustion; efficiency of furnaces, A (10) 461.
Rosin, P. and Rammler, E. Fineness and structure of pulverized coal, A (6) 234.
Ross, D. W. Design and service of tank blocks, A (11) 505; Discussion on glass industries refractories, A (9) 382, A (12) 589; Nature and origin of refractory clays, A (10) 444; Properties and service of glass-melting pots, A (6) 224; Wearing away of tank blocks, A (1) 10.
Ross, D. W. See Lambie, J. M.
Ross, S. F. and Johnson, N. C. Decorative painting on concrete, A (8) 319.
Roth, W. A. Heat of combustion of different pure carbons; existence of amorphous carbon, A (10) 474.
Rotheram, J. and Evans, A. E. Glass-tank construction, P (6) 219.
Rowart, E. Drawing of glass in sheet form and apparatus therefor, P (10) 438.
Rudolph, W. State ceramic technical school at Landshut in Bayern, A (9) 410.
Ruemelin, R. Sand-blast gun, P (1) 32.
Ruff, O. and Mautner, P. Active forms of silicic acid (silica gel); adsorptive capacities, A (10) 480.
Rule, J. F. Glass-forming machine, P (12) 579.
Rumcke, A. Heat recovery and driers for brick plants, A (11) 518; Means for forming and delivering charges of molten glass, P (6) 220.
Runyon, H. J., Jr. Filtration equipment in today's industry, A (11) 546.
Russell, H. Slags and fluxes: Their composition and uses, A (12) 627.
Ryde, J. W. and Yates, D. E. Opal glasses, A (3) 97.

Sachs, G. and Fiek, G. Der Zugversuch, B (10) 456.
Saiki, S. See Kozu, S.
Sakamaki, T. Matsui, M.
Salaquarda, F. See Heinrichs, H.
Salmang, H. Causes of plasticity of clay, A (12) 622; Influence of grain size of flux and materials to decrease plasticity of clays on cone deformation point of clays, A (7) 286; New ideas on constitution of glass, A (6) 216.
Sample, W. L. Economic life of molds, A (6) 227; Notes on feldspar tests, A (2) 68.
Samsoen, M. Change in coefficient of expansion of substances in amorphous state, A (4) 140; Crystallization of glycerine, A (12) 619.
Samuelson, A. Glass working machine, P (5) 173.
Sandved, K. Potentiometric titration of tin with potassium bromate, A (1) 37.
Sarton, G. Introduction to the History of Science, Vol. I, from Homer to Omar Khayyam, B (12) 623.
Sarver, L. A. Determination of ferrous iron in silicates, A (9) 402.
Sato, F. Roofing tile, P (11) 532.
Sauer, U. What can the ceramist learn from the machine industry? A (8) 354.
Sauvage, F. Phosphorescent luminous enamel, P (10) 481.
Sauveur, A. Metallography and Heat Treatment of Iron and Steel, B (1) 9.
Sawada, K. Magnesia cement, P (11) 500.

Sawai, I. Method of manufacturing special glass, P (11) 496; Process of manufacturing special glass, P (11) 496.
Sayers, R. R. Effects of silica dust upon lungs, I, A (10) 473.
Scarth, G. W. See Lloyd, F. E.
Schack, A. See Kühn, P.
Schafer, O. Lime Burning with Gas, Powdered Coal, or Oil, B (10) 427.
Schaller, G. S. Compares cupola refractories, A (11) 522; Refractory linings for cupolas, A (11) 523.
Schaphorst, W. F. When to use ball, roller, and plain bearings, A (10) 455.
Schapira B. Investigation of refractory brick for coal fired boiler installations, A (7) 287.
Schapiro, L. See McCaffery, R. S.
Schauer, T. Principal observations noted in cooling of enamels, A (12) 568.
Scheel. Properties and testing of ceramic finished products, A (1) 36.
Scheidhauer and Giessing Akt.-Ges. Refractory bricks, P (10) 451.
Schell, K. See Geiger, H.
Schelte, F. Adsorption (in glass powder), A (12) 577.
Scheuer, T. Quartz sand and lump quartz; 2 different mineralogical modifications, A (10) 472.
Schiesari, M. Method of and apparatus for making sculptures, P (10) 452.
Schiller, H. Behavior of dielectrics in high tension fields, A (9) 393.
Schlotterrer, G. K. and Youngman, R. H. Unfired refractory brick, P (12) 590.
Schluter, W. C. How to Do Research Work, B (12) 623.
Schmid, A. Rotary furnaces for firing cement, etc., P (5) 168.
Schneider, R. Aluminum hydroxide for manufacture of opaque glass, A (6) 170.
Schmidt, K. H. Work flow in glass industry, A (7) 270.
Schmidt, O. and Hahnle, O. Cement and Gypsum, B (10) 427.
Schmidt, P. Brick machines, old and modern, A (7) 283.
Schmidt, R. Advances in manufacture of works and laboratory apparatus made from glass and ceramics, A (7) 310; Determination of boric acid in silicates, A (6) 218; Electric lamp bulbs, A (8) 333.
Schmidt, R. See Gelhoff, G.
Schmitz, A. Torkret process in iron and steel works, A (6) 226.
Schneider, E. Development of lime kilns, A (8) 325.
Schoeller, W. R. and Jahn, C. Tungsten separation from tantalum, columbium; their mineral associates, A (8) 360.
Schoerk, W. Cement, blast-furnace slag, and minerals, A (10) 471.
Scholes, S. R. Are more durable tank blocks wanted? A (2) 64; Calculation of physical properties of glass, A (4) 134; Regeneration in glass-tank furnaces, A (12) 603; Tank block endurance, A (5) 180.
Schonborn, H. See Ewald, W.
Schoonenberg, P. Glass-manufacturing machine and method, P (11) 512; Method and means for continuous manufacture of glass tubes or rods, P (10) 437.
Schoop, M. U. Device for coating articles with glass, enamel, quartz, or metals, P (5) 169.
Schott, O. Economy of waste heat installations in cement industry, A (10) 422.
Schram, A. L. Reinforced plunger and method of making, P (12) 578.
Schramm, E. and Scripture, E. W., Jr. Particle size distribution of typical feldspars and flints, A (6) 228.
Schroeder, F. W. and Larsen, B. M. Effect of open-hearth process on refractories, A (1) 25.
Schroeder, F. W. See Larsen, B. M.
Schroeder, H. Making of incandescent lamps described, A (6) 215.
Schroeder, H. See Howell, J. W.
Schuen, W. Production of quartz dust and quartz sand, A (10) 468; Refractoriness and chemical composition of clays, A (8) 348.
Schulein, G. Decorative Chinese tiles and porcelain, A (12) 555.
Schultz, M. Refractory industry, A (7) 286.
Schultze, K. Capillarity and wetting, II, A (7) 308.
Schultze, P. Importance of roofing tile in German architecture, A (9) 391.
Schulz, E. H. Testing of refractory material, A (8) 346; Testing of refractory material; behavior in metallurgical operations, A (5) 179.
Schulz, H. Dispersion of light by glasses and its measurement, A (6) 216.
Schumann W. O. Nature of electrical breakdown of insulators, A (9) 393.
Schur, I. Tank furnace having direct firing with crude oil, A (7) 274.
Schutz, H. R. Casting table, P (7) 278; Manufacture of sheet glass, P (12) 581.
Schwarz, R. Constitution of porcelain, A (9) 392; Inorganic Chemistry, B (7) 31; Silicon dioxide and its hydrates, A (3) 118.
Schwarz, R. and Merck, H. Constitution of porcelains, A (3) 110.
Schwarzkopf, P. Process for production of molybdenum trioxide and tungsten trioxide, P (8) 353.
Schweiker, R. W. Holder and brace for rails and sand seals of tunnel kilns, P (2) 73.
Scott, A. Corrosion of steel-furnace refractories, A (6) 226, A (9) 384; Sagger marls and saggers making, A (2) 64; A (3) 107.
Scott, J. Decomposition of glass, A (2) 54; Glass etching by hydrofloric acid, A (5) 165.
Scott, L. L. Oil burner, P (12) 608.
Scott, R. G. and Donachie, J. A. Apparatus for making corrugated plate glass, P (12) 583.
Scripture, E. W., Jr. Behavior of feldspar and flint with acids and bases, A (6) 228.
Scripture, E. W., Jr. See Schramm, E.
Sealey, P. T. and Greene, G. W. New Leonard plant model for flexible production, A (10) 428.
Searle, A. B. Modern tile making, A (3) 103.
Sederholm, P. See Benedicks, C.
Seede, J. A. Electric furnace, P (12) 609.
Segerbloom W. Properties of Inorganic Substances; 2nd Revision and Enlargement of Tables of Properties of over 1500 Common Inorganic Substances, B (11) 543.
Seillan, M. Zirconium refractories, A (7) 289.
Selenyi, P. and Patai, E. Apparatus for measuring thermal expansion of glasses and wires, A (6) 247.
Selvig, W. A. and Fieldner, A. C. Sulphur in coal and coke; check determinations by Eschka, bomb-washing, and sodium peroxide fusion methods, A (9) 402.
Sen, K. C. Influence of nonelectrolytes on precipitation of colloids by electrolytes and adsorption of ions, A (10) 477.
Seto, K. Chemical study of some feldspars, A (10) 478.
Seto, K. See Kôzu, S.
Seyboth, F. Stepped furnace grate, P (12) 609.
Shackelford, O. Apparatus for and method of annealing glass ware, P (12) 579.
Shaeffer, P. H. Basic open-hearth furnace charge, A (1) 25.
Shaw, A. L. Screen for conveyers, P (12) 599.
Shaw, E. Air-separation methods used in fine grinding of rock products, A (6) 231, A (7) 297, A(8) 353; Rock products in Texas, A (10) 468.
Shaw, J. B. Pennsylvania; leader in ceramic production, A (6) 249.
Shaw, J. S. Furnace for melting and refining glass, etc., P (10) 437.
Sheerer, M. G. "Art-in-Trade" movement, P (11) 491; Circulating library, A (3) 90.
Shepherd, H. H. Testing and investigating of slag from cupola furnace, A (9) 387.
Shepherdson, A. See Brit. Dyestuffs Corp.
Sherman, R. A. Temperatures in powdered-coal furnaces having extended radiant heat absorbing surfaces, A (6) 223.

Sherman, R. A. and Rice, W. E. Refractories service conditions in furnaces burning Pittsburgh coal on chain grates, A (1) 24; A (12) 588.
Sherman, R. A., Rice W. E., and Berger, L. B. Investigation of boiler-furnace conditions as related to refractories service, A (2) 65.
Sherman, R. A. and Taylor, E. Service factors governing slagging of boiler-furnace refractories, A (9) 382, A (12) 588.
Sherman, R. A. See Bole, G. A.
Sherman, Y. Theory of fluidity, A (9) 405.
Sherts, J. H. Actinism proof reinforced glass, P (1) 15.
Sherwood, L. T. Merits of actinic glass, A (4) 137.
Shields, G. A. Apparatus for forming glass sheets or plates, P (4) 143.
Shimada, I. Process of manufacturing lustered glass, P (11) 496.
Shimomura, A. See Nakamura, K.
Shinagawa Hakurenga Co., The. Method of manufacturing decorating tile of any kind, P (11) 533.
Shinkai, S. Rapid method for determining silica in silicates, A (3) 119.
Shofu, K. Process of manufacturing porcelain teeth, P (11) 535.
Sibor, S. A., Verreries de Romont. Production of sodium-aluminum borosilicate glass, P (2) 248.
Sidgwick, N. V. Coördination compounds, A (11) 542.
Sidler, A. Glass manufacture; production of metal, P (10) 440.
Sieber, W. Efflorescence of bricks, A (11) 497.
von Sieckenius. Firing of sewer pipe, A (11) 518.
Siemens and English Electric Lamp Co., Ltd., Oakley, P. D. and, Aldington, J. N. Frosting glass, P (11) 494.
Sieurin, E. Alteration of silica brick in service in Martin furnace, A (7) 287; Alteration of silica brick in open-hearth furnace, A (10) 445.
Sieurin, S. Refractories containing silicon carbide, P (8) 349.
Silva, J. N. Kiln, P (4) 155.
Silverman, A. Effect of oxidation and reduction on color produced in glass by selenium, A (5) 171; Glass bulb experiments, A (5) 170.
Simmons, C. L. See Rice, G. E.
Simms, F. C. Method of making ceramic members, P (9) 394.
Simon, A. High-tension insulator, P (12) 593.
Simon, A. and Schmidt, T. Oxides of chromium, A (1) 37.
Simon, F. Low-temperature process, A (12) 627.
Simon-Carves, Ltd. and Brown, J. H. Coke ovens, P (12) 611.
Simpson, H. E. Heat required to fire ceramic bodies, A (12) 615.
Simpson, H. E. See MacGee, A. E.
Simpson, S. G. See Hamilton, L. F.
Simpson, T. Insulation of pottery ovens, A (11) 534.
Singer, F. Advances in ceramics and significance for chemical industry, A (3) 122; Paths and goals of stoneware industry, A (6) 227; Path and object of the German stoneware industry, A (11) 498; Physical properties of ceramic bodies, A (1) 38, A (2) 76; Stoneware industry, A (7) 294; Stone ware of high resistance against perforating power of electrical sparks; making stone ware, P (12) 593.
Singleton, W. Notes on sands used in glass making, A (5) 172.
Singleton, W. See Dudding, B. P.
Skanska Cement-Aktiebolaget. Controlling rate of setting of hydraulic binding materials, P (12) 567.
Skeen, J. R. Effects of some electrolytes on kaolin and probable relations to soil, A (12) 622.
Skola, W. Prolonging life of refractory material, A (9) 389.
Slepzow, W. New method of washing kaolin and refractory clays, A (11) 540.
Slick, E. E. Continuous leer, P (10) 438.
Sloan, T. H. Glass-forming machine, P (3) 102.
Small, J. B. and Kincaid, F. J. Drawing sheet glass, P (9) 380.
Smallwood, A. and Fallon, J. Furnaces, P (12) 585.
Smith, A. W. Elements of Physics, B (12) 623.
Smith, E. F Old Chemistries, B (12) 623.
Smith, E. L. and Phelon, A. E. Stack-forming and feeding mechanism, P (12) 599.
Smith, H. L. Formation of films of lead sulphide on glass surfaces, A (12) 573; Selection and protection of motors, A (7) 313.
Smith, M. B. Factors governing purchase of coal, A (12) 601; North Italian brick work, A (8) 318.
Smith, M. S. C. Near East boy potters, A (12) 556; Near East Pottery, A (3) 91.
Smith, W. D. Geology and Mineral Resources of Philippine Islands, B (12) 615.
Smitheringale, W. V. Antimony and its compound, A (8) 358.
Sneed, M. C. General Inorganic Chemistry, B (11) 543.
Soc. anon. des ateliers de construction et fonderies de Jeaumont, anciens Etablissements T. Haut. Apparatus (with water-cooled roller) for producing plate glass, P (12) 583.
Soc. anon d'etudes et de constructions d'appareils mecaniques pour la verrerie. Apparatus for gathering molten glass, P (12) 582.
Soc. Le Xylium. Plastic compositions containing oxychlorides, P (9) 372.
Soc. Migeot Freres et Arnould. Enamels, P (11) 505.
Solon, M. Pottery Worship; Fallen Idols, B (4) 128.
Sortwell, H. H. Ceramic insulating material, P (9) 390.
Soubier, L. D. Apparatus for feeding molten glass, P (3) 101, P (9) 380; Apparatus for forming glass, P (7) 280; Apparatus for transferring glass articles, P (7) 281; Glass-blowing machine, P (1) 16; Glass feeder, P (3) 192, P (5) 172, p (7) 280, P (8) 340, P (10) 437; Glass-forming apparatus, P (7) 280; Glass-forming machine, P (7) 280; Method and apparatus for producing charges of molten glass, P (12) 580.
Spackman, H. S. Alumina cement, P (9) 372; Hydraulic cement and process of making same, P (12) 566; Process of manufacturing cementitious material, P (12) 566.
Spangenberg K. Phases developed in firing of kaolin, A (11) 540
Spargo, J. Early American Pottery and China, BR (10) 485.
Spate, F. Elementary test of disintegration of glasses by atmospheric agents, A (11) 506, Investigation of glass in tension, A (6) 216; Simple weathering test for glasses, A (5) 172.
Speirs, C. W. Kiln and other heat-treatment furnace, P (10) 463.
Speirs, C. W. See Morgan Crucible Co.
Speller, F. N. and Chappell, E. L. Practical application of inhibitors in pickling operations, A (10) 428.
Spence, P. & Sons, Ltd. See Craig, T. J. I.
Spencer, C. D. and Ott, L. Frosting of glass by mixtures containing hydrofluoric acid and alkali fluorides, A (7) 267.
Spencer, H. R. Economic trend of enameling business, A (11) 504.
Speter, M. Simplified method for determining melting points, A (10) 450.
H. N. Spicer and Dorr Co. Aluminum sulphate from bauxite, etc., P (12) 624.
Spindel. Early high-strength cements, A (8) 325.
Sprenger, E. Method and apparatus for mixing, grading, and sorting granular and pulverulent material, P (10) 456.
Springer, L. Experiments with enamels for glass painting, A (12) 574; Determination of iron in red lead, A (7) 303; Observations and investigations of glass defects, A (3) 100; Powdered coal in German glass field, A (6) 236; Precipitation of metals from glass melts, A (7) 275; Ring test for casing glasses, A (12) 576.
Sproesser, W. C. Controlling softening temperature of glass, P (4) 144.
Spurrier, H. Interesting color problem, A (7) 291; Some fundamentals of terra cotta, A (1) 28; Some observations on terra cotta physics, A (10) 451.

Squirrell, H. S. Baroque art, A (6) 205.
Stadeler, A. Determination of silica in ores, slags, fluxes, and refractory materials in presence of fluorine, A (7) 305.
Stahl, C. J. Glass pressing, A (8) 331.
Staley, H. F. Principles of enameling; XI; Leadless enamels for cast iron, A (12) 567; Theory of pickling of sheet iron and steel for enameling purposes, A (2) 50.
Stang, A. H. Portable apparatus for transverse tests of brick, A (11) 536.
Stansfield, A. and Morrison, J. E. Blast-furnace slags containing titanium, A (10) 479.
Starkey, R. L. See Halvorson, H. O.
Stassinet, T. Experiments with Electrical Annealing Furnace, B (10) 436.
Stauf, W. Methods of viscosimetry, A (10) 472.
Stebbins A. H. Air classifier, P (8) 355; Dust-extracting unit, P (8) 355.
Steenstrup, C. Electric furnace, P (12) 609.
Steger, W. Heat Economy in Ceramic Industry, B (7) 299; New investigations on heat expansion and annealing temperature of glazes with special reference to fitting of glazes to bodies, A (7) 293; Research on refractories in the U. S. in 1926, A (10) 448; Theory of drying, A (5) 196.
Stehmann, H. Rotary kiln for burning cement, magnesite, lime, etc., P (4) 155; Study of heat economy of rotary kiln, A (10) 460.
Steimer, T. C. Glass-working apparatus, P (11) 512.
Stein, G. Pot for glass-melting furnaces, P (7) 279.
Stein, G. See Glasfabrik Akt.-Ges.
Steinberg, S. S. Recent research developments in field of rock products, A (4) 133.
Steinbrecher, F. Quantitative determination of alumina in silicate analysis, A (7) 310; Rational analysis of clays, A (7) 304; Reply to "Practical experience with rational analysis of kaolins," A (8) 359.
Steinhoff, E. Importance of silica inversions to combustion process and to behavior of refractories in use, A (10) 448; Preparation and Properties of a New Light Refractory from Cristobalite, B (10) 450; Recent methods of investigating refractory materials; importance to gas-works furnace construction, A (11) 528; Relation of silica transformations to behavior of refractories in use, A (7) 289.
Steinkamp, J. H. See Litinsky, L.
Stephani, W. J Shivering, A (1) 28.
Stephenson, H. H. Note on sieving, A (10) 483; Note on thixotropy, A (12) 591.
Stettbacher, A. Production, properties, and experimental study of burnt magnesite, A (4) 150.
Steuler, G. Helical refractory filling material for reversible hot-blast stoves and regenerators, P (12) 610.
Stevens, W. J. Casein compositions, P (10) 428.
Stevenson, C. Spain comes to Canada, A (12) 558.
Stevenson, E. P. Method of producing sodium fluoride, P (9) 409.
Stief, W. C. and Hemsteger, S. E. Modern frit furnace, A (2) 68.
Stillwell, C. W. Color of the ruby, A (2) 48.
Stilwell, R. O. and Christie, C. H. Process of and apparatus for making sheet glass, P (10) 438.
Stirlen, E. D. Method and apparatus for determining hydrogen-ion concentration, P (4) 159.
St. John, A. Technical uses of X-rays, A (5) 190.
St. John, H. M. Refractories for metals; preliminary report of sub-committee on survey of nonferrous foundry industry for American Foundrymen's Assn., A (4) 149.
Stockett, J. W., Jr. Quick-setting lime and process of making, P (1) 8.
Stockinger, J. Technique of glass painting, A (4) 127.
Stockton, M Process of and apparatus for treating minerals, P (2) 71.
Stockwell, C. H. X-ray study of garnet group, A (11) 540.
Stoess, L. Protecting the eyes against ultra-violet rays, A (2) 55.
Storch, H. H. See Gauger, A. W.
Storey, W. R. Art of glassblower is alluring, A (9) 367.
Stott, V. H. Viscous properties of glass, A (6) 214.
Stott, V. H., Turner, D., and Sloman, H. A. Effects of thermal treatment on glass shown by precise viscometry, A (4) 137.
Stover, G. H. Apparatus for handling bricks, P (7) 285.
Stowe, C. B. Laminations, foe of fire brick, A (7) 287.
Strache, H. and Carman, J. Apparatus for determination of steam in gases, A (7) 304.
Strachota, C. A. Furnace wall, P (11) 531.
Straight, H. R. Design of clay products plant employing tunnel kiln, A (7) 282; Drier kiln, P (2) 73; Mechanism for transferring plastic blocks from one conveyer to another, P (4) 146; Pug mill, P (2) 71; Some new ideas in clay working, A (7) 282, A (11) 517; Tile cutter, P (4) 147; Tunnel kiln, P (9) 399.
Strauss, B. Materials for making glass molds, A (3) 100.
Strauss, K. German Ceramics of the Present, A (10) 484.
Stromeyer, C. E. Oil fuel for steam boilers, A (2) 87.
Stroutinsky, L. B. Structure of crystalline phases of porcelain, A (12) 593.
Strutinski, L. B. X-ray analysis of clays, A (7) 309.
Stuart, W. A. Lining for blast furnaces, etc., P (9) 390.
Stuckey, J. L. Feldspar and feldspar production in N. C., A (11) 533; Feldspar mining in N. C., A (12) 612; N. C. pyrophyllite deposits, A (5) 188.
Studien Ges. fur Wirtschaft u. Industrie. Cementing porcelain, P (11) 500.
Stull, R. T. Whirlpool classifier and classifying process, P (8) 354.
Stumper, R. Dehydration of gypsum, A (11) 499; Thermal analysis of gypsum dehydration, A (11) 498.
Sturmer, C. Cologne brown stone ware, A (8) 322.
Sugie, S. Penetrability of various rays through glass; V, Penetrability of ultra-violet rays through glass of special or complex composition, A (10) 435.
Suirokomskii, V. S. Review of methods for production of titanium carbide, A (9) 389; Production of titanium dioxide, A (9) 389; Production of titanium tetrachloride, A (9) 388; Titanium; application in industries, A (9) 389.
Summey, D. L. Art of furnace lining, P (12) 590.
Sutcliffe, Speakman and Co., Ltd. Loading bricks, P (11) 521.
Suzuki, K. See Hirao, T.
Suzuki, T. Method of manufacturing thermos pottery bottle, P (11) 535.
Swain, R. E. Deformation of glass ware due to unequal cooling during manufacture, A (6) 216; Importance of ductility as working property of glass, A (10) 433; Temperature gradients in fabrication of machine-blown glass ware, A (3) 100.
Swan, E. and Urquhart, A. R. Adsorption equations; review of literature, A (7) 308.
Sweeney, W. T. See Hidnert, P.
Sweet, J. A. See Halbach, H. L.

T. E. L. "Press" porcelain, A (8) 352.
Tabata, K. Causes of surface devitrification of glasses, A (3) 96; Determination of constitution of glasses, A (2) 52; Surface devitrification of glasses; Pt. III, Devitrification of alkali silicates, A (10) 432; Pt. IV, Devitrification of alkali lead silicates, A (10) 432.
Tabata, K., Yegami, K., and Moriyasu, S. Judging quality of flint glasses by method of surface devitrification, A (6) 218; Weathering of glasses, I, A (6) 218.
Taber, W. P. Method and means for supporting roof strata during mining of minerals, P (8) 364.
Tada, B. Process of manufacturing fluid-holding lens, P (11) 515.
Tadokoro, Y. Effect of porosity upon thermal conductivity, diffusibility, and heat capacity at high temperatures, A (5) 182.

Takahashi, I. Glass transmitting ultra-violet rays, P (11) 515.
Takamatsu, S. and Kitagawa, K. Process of preparing strong cement, P (11) 502.
Takamatsu, T. Report of National Research Council of Japan, A (1) 40.
Takebe, T. See Yamaguchi, Y.
Takenaka, F. Process of manufacturing silky glass, P (11) 515.
Talwalkar, T. W. and Parmelee, C. W. Measurement of plasticity, A (10) 469.
Tammann, G. Chemical reactions in mixtures of solids at high temperatures, A (10) 472.
Tamura, K. See Nakamura, K.
Tamura, K. See Toyokawa, K.
Tananaev, N. A. Chemical-analytical investigations of lime, A (10) 427.
Tatlock, R. R. Spanish Art, B (8) 322.
Tattersall, N. Occurrence and clinical manifestations of silicosis among hard ground workers in coal mines, A (5) 200.
Taylor, A. K. and Grieveson, C. J. W. Transmission factor of commercial window glasses, A (2) 56; Transmission of light by window glass, A (4) 136.
Taylor, E. See Sherman, R. A.
Taylor, R. L. Prepared fire-proof mortar, P (12) 628.
Taylor, W. A. Hydrogen-ion control in ceramics, A (6) 239; Hydrogen-ion control in industrial processes, A (11) 539.
Taylor, W. C. Glass composition, P (2) 57, P (4) 141.
Tazumi, K. Method of manufacturing an artificial whetstone, P (11) 491.
Tefft, C. F. See Hearing, R. H.
Teison, T. Further developments in recuperative glass furnaces, A (10) 432.
Teller, L. W. and Pauls, J. T. Survey proves worth of tbin pavers, A (1) 19.
Tennyson, C. Applied art in Great Britain, A (2) 49.
Tepohl W. See Fischer, E.
Tepohl, W. See Heinrichs, H.
Tertsch, H. Researches in the Science of Crystals: I, Habit of Crystals, B (10) 480.
Terzhaghi, C. Mechanics of adsorption and of swelling of gels, A (7) 306.
Teter, J. P. Dehydrator for clay slips, P (8) 355.
Thamm, J. Recent patent literature pertaining to sand-lime brick, A (11) 499.
Thews, E. R. Fireclay bricks, A (6) 225.
Thiene, H. Postwar apparatus glass, A (7) 274.
Thomas, A. H. Plan production schedule, A (9) 412.
Thomas, M. Annealing of glass, A (7) 269.
Thomas, M. See Gehlhoff, G.
Thomson, E. Fused quartz product and process of producing, P (2) 68.
Thompson, F. S. Some aspects of glass tank practice, A (4) 134.
Thompson, F. S. and Vormelker, H. I. Mullite content of some American tank blocks, A (1) 10.
Thompson, H. Patents and trade marks in the Irish Free State, A (12) 626.
Thompson, R. C. Glass making methods and batches of 2500 years ago, A (1) 13.
Thorman, F. M. Physical behavior of gypsum plaster, A (7) 259.
Thornton, W. M. Titanium, B (11) 543.
Tillotson, E. W. Researches in glass at Mellon Institute, A (7) 267.
Tipping, J. See United Glass Bottle Manufacturers, Ltd.
Tippmann, F. Lime excess in Portland cement, A (12) 565.
Tochterman, U. Testing small cement specimens, A (10) 423.
Todd, E. W. Reversing electric *p*H indicator, A (7) 306.
Tokio Electric Co., The. Apparatus for matting inside of bulb for incandescent lamp or similar glass ware, P (11) 516; Light-diffusing colored glass ware, P (11) 516; Method of manufacturing quartz-glass tubes, P (11) 531; Optical filter, P (11) 515; Process of joining metal to glass, P (11) 515.
Tokio Industrial Lab., The. Pottery kiln, P (11) 538; Process of removing iron from clay ware, P (11) 547.
Tokunaga, Y. Method of keeping glass fed automatically, at uniform state of fusion, P (11) 514; Process of blowing glass ware which has letters or design on narrow part, P (11) 496; Rotating tube mechanism for glass feeders, P (3) 101.
Tolman, R. C. Statistical Mechanics with Applications to Physics and Chemistry, B (12) 623.
Tone, F. J. Grinding wheel and holder therefor, P (11) 490; Nonslip floor construction, A (8) 317.
Toohey, W. A. Portland cement in Canada, A (8) 325.
Totot-Gibaru, C. Enameling of cast and sheet metal, P (5) 169; Leadless enamels, P (1) 10.
Tournier, E. J. Pneumatic conveying of gritty materials, A (4) 153.
Toyo Kako Co., The. Flooring mortar, P (11) 500.
Toyokawa, K., Tamura, K., and Kurosawa, T. Method of manufacturing anti-freezing agent for cement, P (11) 502.
Treischel, C. C. An outsider's view of inside of whiteware industry, A (7) 291.
Trimmer, J. B. Objects of art for the home, A (12) 556.
Trinks, W. Effect of design and construction upon operation of open-hearth furnace, A (3) 104; Heat recovery in open-hearth furnaces, A (11) 537; Open-hearth furnace refractories, A (5) 177; Recuperators for industrial furnaces, A (12) 604.
Trivelli, A. P. H. See Loveland, R. P.
Trocknungsverschwelungs und Vergasungsges, Furnaces, P (12) 611.
Troop, R. S Some drier considerations, A (6) 232; A (9) 393.
Trotter, C. T. Vitrified clay pipe, A (4) 146.
Troutman, F. E. and Christie, C. H. Grinding and polishing table, P (2) 58.
Trumper M. Diagrammatic representation of hydrion concentration. A (10) 473.
Tschischewslay, H. Determinations of fusibility of clay from its combined water content, A (7) 288.
Tschitajew, A. See Ginsberg, A.
Tsugawa, H. and Uchio, N. Process of decorating pottery glass, or refractory building stones with photograph, P (11) 495.
Tubandt, C. and Munzing, E. Equilibrium between molten metals and salts, A (10) 479.
Tuchel, G. Applied geophysics, A (1) 35.
Tucker, N. P. Silicon of high purity, A (8) 361.
Tucker, O. M., Reeves, W. A., and Beatty, J. M. Apparatus for feeding charges of molten glass, P (12) 582.
Turk, R. H. See Wolfram, H. G.
Turner, A. P. Form for making hollow bricks, tiles, etc., P (12) 587.
Turner, B. See Grosvenor Scientific Products, Ltd.
Turner, R. C. Cost and accounting as applied to clay industries, A (3) 122, A (6) 250, A (8) 362, A (10) 482.
Turner, W. E. S. Conditions in German glass industry reviewed, A (5) 170; Effect of amount of cullet on melting of glass, A (9) 376; Lecture on progress in glass industry, A (10) 434; Natural sillimanite as refractory material in glass industry, A (10) 447; Notes on analysis of glasses, A (11) 508; Physical properties of glasses; relationship to chemical composition and mode of preparation, A (3) 101; Physics in glass industry, A (10) 435; Recent progress in glass industry, A (6) 217, A (7) 270, A (8) 328; Some glasshouse tests to determine differences in general characteristics and working properties of molten glass, A (6) 214; Year's progress in study of glass at Sheffield, A (6) 214.
Turner, W. E. S. See Cousen, A.
Turner, W. E. S. See Dimbleby, V.
Turner, W. E. S. See English, S.
Turner, W. E. S. See Firth, E. M.
Turner, W. E. S. See Parkin, M.

Tutton, H. R. Effect of chemical composition on physical properties of Portland cement, A (9) 371.
Twells, R. See Mitchell, H. J.
Twells, R. See Riddle, F. H.
Twyman, F. Quantitative spectroscopic analysis, A (5) 191.
Tyler, C. Chemical Engineering Economics, B (6) 248.
Tyrrel, G. W. Principles of Petrology, B (9) 400.
Tyson, A. H. Glass-molding machine, P (1) 15.

Uchio, N. See Tsugawa, H.
Ueyama, T. and Hariki, K. Preparation of blue clay, P (11) 532.
Uhlig, K. Glass and ceramics in Japan, A (9) 412.
Uhlmann, A. Artificial stone, ceramic products, etc., P (12) 628.
Ullrich, E. Effect of calcination process on properties of Portland cement, A (6) 209, A (7) 261.
Umeda, O. Method of charging shaft kiln, P (11) 532.
Underwood, A. J. V. Air moisture in drying operations, A (5) 191.
Unger, M. Refractories for induction furnaces, A (1) 25.
United Glass Bottle Manufacturers, Ltd., and Tipping, J. Glass manufacture, P (11) 514.
Urbschat, E. E. New plant equipment and apparatus, A (10) 455.
Ure, S. G. M. Progress in plant and machinery in 1926, A (6) 250.
Urquhart, A. R. See Swan, E.

Vachuska, E. J. and Bole, G. A. Notes on cyanite and diaspor refractories, A (11) 522.
Vachuska, E. J. See McDowell, S. J.
Valentine, W. G. See Alling, H. L.
Valko. See Pauli, W.
Vallance, R. H. and Eldridge, A. A. Chromium and its congeners, B (2) 85.
Van Allen, G. L. See Colby, E. A.
Vance, G. E. Ring wheel grinder and method of making, P (11) 490.
Van Ormer, L. Firing your first brick kiln, A (6) 222.
Van Scoyoc, H. S. Securing high early strength from ordinary Portland cement, A (4) 132.
Varcoe, R. G. Pottery composition, P (12) 595.
Varcoe, K. G. and Harvey, H. P. Comminuting china clay, P (5) 185.
Vaughan, M. Crolius and early American stone ware, A (10) 419; Old Blue Staffordshire in America, A (6) 205.
Vaughan, W. See Kriegsheim, H.
Vernon, A. A. See Hurd, C. B.
Vershofen, W. European porcelain industries show variance in product, A (1) 29; Process for production of ceramic products, P (7) 311.
Versluys, J. Hypothesis explaining some characteristics of clay, A (12) 620.
Vesterberg, K. A. Kaolin; its thermal changes, A (6) 240.
Vickers, A. E. J., Dale, A. J., and Corfield, H. V. Holing of silica refractories; Report of the Refractory Materials Joint Comm., A (12) 589.
Vickers, A. E. J. and Green, A. T. Trend in design in modern coke-oven construction; its bearing upon refractory materials, A (9) 385.
Vickers, A. E. J. See Konarzewski, J.
Vickers, Ltd. and Parker, L. D. Rotary cement kiln, P (7) 263.
Vielhaber, L. Oxide of antimony in enamels, A (12) 568.
Vierheller. New apparatus for determining fineness of grain of material, A (12) 596.
Violette, E. See d'Arleux, R. M.
Vitrefax Co. Clay products, P (11) 531.
Vogt, A. Plant of Westfield Clay Products, A (3) 103; Water-smoking downdraft kilns with bituminous coal, A (1) 33.
Volker, H. See Mundt, E.
Vormelker, H. L. See Thompson, F. S.
Voss, A. See Kränzlein, G.

W. E. Work of German Society of Glass Technology, A (9) 410.
W. H. Glass decolorizing materials, A (7) 268; Glass gilding, A (8) 320; Glass mosaics, A (12) 573; Matt etching and decoration of glass, A (8) 320; Metallic reflections from glass, A (8) 329; Yellow glasses, A (8) 328, 330.
Wada, T. and Yamazoe, S. Water-proofing agent for cement, P (11) 501.
Wade, C. F. Air preheating and preheaters, A (9) 394; Waste-heat utilization, A (12) 586.
Wadsworth, F. L. O. Scientific paper dealing with nonglare mirrors, A (5) 170.
de Waele, A. Notes on plasticity, A (10) 472.
Wainwright, S. B. Designing for industry; advantages and disadvantages of the machine, A (2) 49; Modern shop fronts, A (2) 49.
Wakao, G. Water-proof painting on biscuit ware, P (11) 495.
Waldron, F. B Method and apparatus for producing continuous strip of glass, P (6) 220.
Walker, R. New furnace lining, A (6) 225.
Walker, T. C. Effect of fine grinding on indurated clay, A (7) 311.
Walker, T. L. and Parsons, A. L. Zeolites and related minerals from Lake Nipigon, Ontario, A (3) 115.
Wallace, G. W. Carbonizing apparatus, P (10) 465; Method of carbonizing fuel, P (10) 465; Process of distilling and gasifying solid carbonaceous fuel, P (10) 465.
Wallace, R. C. Clays, A (6) 239; Colloidal properties of clays, A (2) 75.
Wallace, R. G. Wall construction, P (8) 344.
Wallich, J. Porcelain spinning nozzles for artificial silk of guaranteed accuracy of 0.01 mm., A (9) 392.
Walston, C. Alcamenes and Establishment of Classical Type in Greek Art, B (3) 93.
Walter, G. W. Highly efficient tunnel kiln, A (3) 112.
Walther, A. See Inge, L.
Ward, J. T. and Hambien, J. B. Influence of diffusion of oxygen on rate of combustion of solid carbon, A (11) 540.
Wardner, H. E. See Binns, C. F.
Warren, E. C. See Gillson, J. L.
Wasch, K. Art glass of Leerdam, A (3) 91.
Washington, H. S. Some jade history, A (1) 4.
Waterman, H. H. Air-swept ball mill, P (8) 356.
Waters, T. F. Take-down apparatus, P (10) 437.
Watkins, G. B. Total carbon in coal, A (11) 540.
Watkins, J. F. True functions of terra cotta, A (8) 349.
Watson, H. E. See Narcund, K. S.
Watson, H. L. Process and apparatus for producing silica articles, P (5) 183.
Watson, J. A. See Daniels, S.
Watson, W. See Martin, G.
Watts, A. S. Some whiteware bodies developed at Ohio State Univ., A (5) 184; Spark plug insulation, A (12) 593.
Watts, A. S., King, R. M., and Fisk, H. G. Study of effect of substitution of calcined ball clay for nonplastic in porcelain and talc bodies, A (3) 108.
Weaver, J. C. History and improvement of furnace bars, A (12) 567.
Weaver, R. A. Burning rack, P (2) 51.
Weaver, W. Duration of transient state in settling of small particles, A (12) 620.
Weber, A. and Robinson, C. S. Evaporation, B (1) 32.
Weckerle, F. Electrical heating body for high temperatures, especially for ceramic metallurgical and chemical processes, P (10) 464.
Wegner, G. Three new German sand-lime brick plants in Hamburg, A (10) 443.
Weicken. Methods of transportation in brick and clay plants, A (9) 394.
Weightman, H. E. Choosing and testing fire brick, A (1) 24; What is good fire brick? A (1) 24.
Weigel, W. M. Uses and preparation of rock dust, A (5) 199.

Weil, R. Microscopic study of transition of cristobalite from its alpha to beta form, A (2) 76, A (10) 472.
Weimann, B. Briqueting of colloidal fuel, A (7) 312.
Weimer, L. S. Apparatus that has improved enamel, A (10) 453; Blowers cut fuel cost 25%, A (4), 133.
Weinod, V. Relining smelting furnaces, A (6) 225.
Weise, C. See Guttmann, A.
Weise, D. C. New apparatus for measuring fineness of grain of materials, A (3) 111, A (12) 596.
Weiss, J. and Karg, A. R. Insulating sheets, P (12) 595.
Welch, H. V. Water-proof cement, P (12) 566; Water-proof plastic Portland cement; composition and method for making, P (12) 566.
Welch, L. E. Artificial stone or marble, P (7) 262.
Wells, A. B. Ophthalmic lens, P (12) 578.
Wentworth, C. K. Accuracy of mechanical analysis, A (9) 404.
Werring, W. W. Impact testing of insulating materials, A (4) 152.
West, F. and Fagan, J. W. Practical results and experience in drying and burning of refractory materials, A (10) 459.
West, J. See Bragg, W. L.
Westbrook, F. A. Boston Brick Company plant at Gonic, N. H., A (11) 517.
Westbury, W. Regenerative glass furnace, P (1) 16.
Westbury, W. and Collins, P. W. Manufacture of glass articles, P (5) 173.
Westenbrink, H. G. K. Double salts in the isomorphous series $MgSO_4 \cdot 7H_2O$–$ZnSO_4 \cdot 7H_2O$; remarks on solid compounds in general, A (9) 405.
Westenbrink, H. G. K. See Jaeger, F. M.
Western Gas Construction Co. Automatic reversing valve for gas-producing plants, P (12) 600.
Westman, A. E. R. Statistical methods in ceramic research, A (5) 194.
Westman, A. E. R. See Ketchum, P. W.
Westman, A. E. R. See Parmelee, C. W.
Westmont, O. B. See Hartmann, M. L.
van Westrum, L. S. Cement products mixture, P (11) 500.
Wetzel, K. Effect of various additions on physical properties of porcelain, A (9) 392.
Wever, F. and Fischer, W. Theory and construction of high-frequency furnaces; I, Concerning induction furnaces, A (12) 605.
Wever, F. and Neuhauss, H. Considerations of metallurgical importance with induction furnaces, II, III, A (12) 605.
Wheeler, E. S. and Kuechler, A. H. New mercury volumeter, A (12) 595; Properties of refractories in metallurgy of zinc, A (4) 147.
Wheeler, R. V. Chemistry of coal, A (12) 617.
Wheeler, R. V. See Francis, W.
Whipple, R. S. Silvering of glass and quartz filaments, A (7) 269.
White, A. E. Annealing furnace for sheet glass. P (12) 584.
Whitehead, J. B. Lectures on Dielectric Theory and Insulation, B (12) 623.
Whittaker and Co., Ltd. and Whittaker, N. Brick-making machines, P (11) 521.
Whittaker, N. See Whittaker and Co., Ltd.
Wickerham, F. A. Gas permeability of refractory brick, A (9) 385; Gas permeability of refractory brick used in metallurgical furnaces, A (9) 385.
Wickham, P. E. Decolorizing china clay, P (11) 543.
Widemann. Contribution to study of silica brick, A (1) 21.
Wierz, M. Theory of material conversion in combustion processes, A (7) 299.
Wigginton, R. Notes on recent developments in fuel technology, A (8) 357.
Wight, G. E. Apparatus for use in laying bricks and similar elements in building, P (4) 146.
Wilhelmy, O. Firing decorative glass ware with electric heat, A (7) 256.
Wilkinson, G. D. Gas produces better results at less cost, A (1) 32.
Willems, H. W. V. See de Jong, W. F.
Willetts, P. G. Glass furnace, P (1) 15; Method of making refractory blocks, P (7) 290; Method of producing fired ceramic blocks, P (7) 290.
Williams, C. P. and Graham, C. S. Silica brick problems, A (6) 225.
Williams, T. L. See Benton, A. F.
Williams, W. S. Glass tank of tunnel kiln possesses many advantages, A (6) 213; New type of tunnel tank replaces day tank, A (5) 169.
Williamson, G. C. Book of Famille Rose, B (4) 128.
Wills, S. A. Consumption of power in the heavy clay industry, A (10) 441.
Willson, B. W. Strengthening clay-ware bodies, A (1) 19.
Wilson, H. Ceramics-Clay Technology, BR (11) 547; Some feldspathic materials of Pacific Northwest, A (7) 302 A (9) 399.
Wilson, M. E. Talc deposits of Canada, A (7) 302.
Wilson, R. See Ashton, F. W.
Wilson, W. E. and Lykken, H. G. Single fire-box kiln, P (7) 300.
Winchell, A. N. Further studies in the mica group, A (9) 399.
Winkler, M. Reduction of cost of firing porcelain, A (9) 398.
Winckler, N. See Odén, S.
Winks, F. See Firth, E. M.
Winogradoff, A. Fire-resistant fibrous material and method of producing same, P (12) 628; Liquid mixture for use in treating combustible fibrous materials to render them fire resistant, P (12) 628.
Winship, W. W. Various uses of vitreous silica and vitreous quartz, A (2) 66, A (5) 180; Vitreous silica and vitreous quartz, A (1) 27.
Wintermeyer. Combustion chamber of steam boilers burning powdered coal, A (8) 357.
Wirrer, G. Grinding wheels and method of grinding, P (12) 554.
Wishnevsky, A. Thermal conductivities of refractories, A (9) 386.
Withey, W. H. Critical survey of methods in use for analysis of simpler glasses, A (10) 429.
Withrow, J. R. Needs and future of lime in chemical industry, A (11) 497; Problem of lime industry, A (7) 257.
Witte, R. Production of clinker, A (10) 443; New method of firing, A (2) 72.
Wolcott, E. R. Aluminum-chloride, production, P (9) 409.
Wolf, J. Determination of tint of colored glazes on basis of Ostwald's color theory, A (7) 255; Refractory material from reign of Bilin and Teplitz, A (11) 528; Why is it impossible to obtain deep, bright, full color tints in cover glazes (enamels, etc.), A (11) 505.
Wolfram, H. G. and Turk, R. H. Some observations on aging of enamels, A (7) 264.
Wolfram H. G. See Harrison, W. N.
Wolfsholz, A. Refractory material, P (12) 591.
Wolski, P. See Ostwald, W.
Woltersdorf, A. Concerning north German brick architecture, A (3) 108.
Wood, J. F. L., Houldsworth, H. S., and Cobb, J. W. Influence of foreign matter on thermal expansion and transformation of silica, A (9) 383.
Woodhouse, W. Temperature control in works processes, A (2) 71.
Woodward, W. E. Metallography of Steel and Cast Iron, B (1) 9.
Woodson, J. C. Electric furnace, P (6) 232.
Wright, C. H. Apparatus for making sheet glass, P (4) 142; Sheet-glass drawing apparatus, P (4) 142.
Wright, M. Inventions and Patents; Their Development and Promotion, B (12) 627.
Wright, W. H. Coke oven, P (12) 607.
Wuster, A. and Piwowarsky, E. New method for determination of gases dissolved in molten metals, A (9) 402.
Wybergh, W. J. Kaolin, A (6) 238.
Wyckoff, R. W. G. and Morey, G. W. X-ray diffraction measurements upon compounds in the system soda–lime–silica, A (2) 75.

Xhygnesse, H. Gas heating of pot furnaces in glass works, A (7) 278.

Yagiou, C. P. Industrial ventilation with particular reference to hot and dusty trades, A (10) 482.
Yamada, K. Process of manufacturing bracelet of silk glass, P (11) 495.
Yamaguchi, Y. Softening agent of cement mortar, P (11) 502.
Yamaguchi, Y. and Takebe, T. Studies on properties of diaspor and bauxite, A (5) 181.
Yamaguchi, Y., Takebe, T., and Morioka, T. Studies on diaspor, A (5) 180.
Yamaguchi, Y., Takebe, T., and Yazawa, T. Properties of bauxite, A (5) 181.
Yamamoto, K. See Kobayashi, K.
Yamamura Y. Impermeable acid-proof cement, P (11) 503.
Yamazoe, S. See Wada, T.
Yanaka, R. Method of preparing water-proofing agent for cement, P (11) 502.
Yanaka, R. and Mano, N. Method of manufacturing water-proofing agent for cement, P (11) 501.
Yasuirkin, N. M. Heat of formation of ferrates of calcium, A (7) 306.
Yates, D. E. See Ryde, J. W.
Yazawa, T. See Yamaguchi, Y.
Yegami, K. See Tabata, K.
Yeomans, L. I. Means for supporting rotary cylinders, P (12) 596.
Yoe, J. H. and Freyer, E. B. Effect of hydrogen-ion concentration on viscosity of hydrosols of Al_2O_3, Fe_2O_3, and Cr_2O_3, A (1) 37.
Yokota, S. See Kanematsu T.
Yonekura, T. See Ishiwara, T.
Yoshimura, U. Water-proofing agent for cement P (11) 501; Water-proofing and quick-hardening agent for cement, P (11) 501.
Yoshioka, T. See Horiba, S.
Young, A. C. See Rogers, W. R.
Young, F. W. Continuous filtering of clay bodies, A (3) 109.
Young, J. W. Bloom on window glass, A (10) 435.
Younger, J. Modernization, magician of industry, A (9) 411.
Youngman, R. H. See Schlotterer, G. K.

Z. Cologne cathedral windows, A (8) 320; Glass sun-dials, A (8) 329; New motives in stained glass, A (8) 320.
Zapp, F. See Kopka, G.
Zawadzki, J. Report of Federation nationale de Chimie pure et Appliquée de Polognée, A (1) 41.
de Zawaritzky, A. Graphic method for determination of calorific power of coal, A (10) 461.
Zehner, G. Short or long drying time, A (10) 460.
Zeigler. See Fellner.
Zemyatchenskii, P. A. Changes in kaolinite at high temperatures, A (12) 618; Hydrolysis of micas, A (12) 614.
Ziener, T. Calculation of mercury content and scale length for thermometer blowing, A (10) 455.
Zimmerman. Chrome-red crystalline glazes, A (11) 493.
Zimmerman, A. C. See Daniels, S.
Zimmerman, J. See Horovitz, K.
Zimpelmann, E. See Zschimmer, E.
Zoellner, A. View of ceramic industry in the U.S., A (8) 363; The Book of Porcelain, B (8) 322.
Zschimmer, E. Calculation of glass constants in form of individual functions of oxides in given fundamental glasses, A (4) 140; Fining of pure and aluminous alkali–lime–silica glasses with sulphates or arsenic, A (7) 271; Signal green glass and light absorptions of various copper oxide-containing glasses, A (8) 337.
Zschimmer, E. and Dietzel, A. Temperature-time curves of visible devitrification of plate glass, A (1) 14.
Zschimmer, E., Grisar, C. M., and Meess, H. Signal green glass, A (1) 12.
Zschimmer, E., Zimpelmann, E., and Riedel, L. Fining of pure and aluminous alkali–lime–silicate glasses with saltcake or arsenic, A (1) 38.
Zunckel, R. Influence of water and carbon dioxide under pressure on molten and solid silicates, A (10) 475

SUBJECT INDEX TO ABSTRACTS

Abrasion test of various ceramic bodies, A (2) 76.
Abrasive, apparatus for applying, to plate glass grinding mechanism, P (4) 127.
apparatus for grinding and applying same to continuous grinding system, P (8) 354.
article, P (4) 126.
consisting of a bonded mass of abrasive and other grains which break out more readily than the abrasives, avoiding glazing of the operative abrasive surface, P (11) 490.
of granular material with a ceramic bond; method of preventing laminations, P (1) 3.
and method of manufacturing same; firing article to soften bond mixture and cooling under nonoxidizing conditions, P (9) 367.
cutting-off, wheel, P (4) 126.
diatomaceous peat used as, after preparation, of same nature as tripoli, A (12) 553.
fabric, water-proof, and method of making, P (12) 554.
grain, an improved; process which eliminates weak, slivery grains, A (2) 48.
implement comprising compound of silicon, carbon, and oxygen, and substantially free of crystalline carbide of silicon, P (1) 3.
material industry, condition of German, A (1) 3.
materials, report on by the Dept. of Mines, Ottawa, Canada, A (9) 366.
sheet material consisting of sheet cellulose base, water-proofing agent impregnated through the fibers, and a separately applied grit-holding coating of adhesive, P (12) 554.
waterproof, P (4) 126.
wheels; British regulations, A (4) 126.
wheels, mounting for segmental; an abrasive wheel comprising a rotatable driving head having an annular flange, P (2) 48.
Abrasives, aluminous, production of, by use of electric furnace, A (11) 489.
aluminous, various methods of varying physical properties of, A (11) 489.
in Britain, census of production of various types of, A (11) 489.
in Canada in 1925, A (6) 204.
fused aluminous or other abrasive grains are mixed with a binder such as Albany clay and plastic ball clay and fired, P (10) 419.
garnet for; minerals comprising the garnet group, compositions and hardness of the best garnets, A (12) 553.
history and development of, natural and artificial, A (11) 489.
a method proposed and apparatus described of testing the serviceability of loose grinding materials; data obtained on various abrasive materials, A (8) 316.
some physical properties of artificial aluminous, A (5) 195, 199.
type of, to be used with various metals, A (1) 3.
Absorption of gases by glass walls, A (9) 379.
selective, of ions by colloidal clay, A (12) 619.
Absorptive power of kaolin for gases, A (3) 117.
Accessions, recent, in the Near East collection, A (6) 205.
Acid clay, physico-chemical properties of, diameters of particles measured with ultramicroscope, A (10) 470.
rings, spiral, manufacture of; development of machine to manufacture, statistics as to production, A (2) 68.
sulphurous, from gypsum, A (10) 471.
Acidity, determination of, of different glasses by means of the quinhydrone ionometer of Prof. Luers, A (10) 479.
Actinic glass, merits of, reduces glare, reduces radiant heat in direct sunlight, retards fading of colors, more closely simulates sunlight on dark days, A (4) 137.
Address, Presidential, A (5) 195.
Adsorption at crystal faces; the growth and solution of single copper sulphate crystals in the presence of gelatin and dyes, A (9) 400.
at crystal-solution interfaces, II; individual potassium alum crystals grown in presence of gelatin and dyes, A (11) 539.
equations, a review of the literature, A (7) 308.
of gases by glass and silver powders, A (1) 12.
(in glass powder), A (12) 577.
of hydrogen by sodium and calcium, formation of compounds NaH and CaH_2, A (10) 474.
and mobilization of potassium ions in colloidal clays, A (10) 472.
of sulphur dioxide by glass walls, A (11) 542.
of water vapor on a plane fused quartz surface, the isosteric heats of adsorption of water on silica and on platinum, A (3) 119.
Adsorptive force of silica for water, A (9) 405.
Africa, china clays in, A (6) 238.
After-working of glass as a function of composition, A (2) 52.
Agents, coloring, copper and iron as, in glasses and glaze; the effects which can be produced by them and their compounds, A (12) 571.
coloring in glasses and glazes for the production of many different colors, A (11) 509.
Agreement of ground coat and enamel, A (6) 212.
Aggregate, coarse, as a field for needed research, A (5) 166.
names, standardizing, A (5) 166.
Air classifier and Hardinge mill described; use of in grinding terra cotta clay to 80-mesh; advantages of finely-ground clay and use of air separation described, A (11) 532.
excess, curves given showing excess air necessary for proper combustion with various fuels, A (1) 33.
flows in mines, the calculation and measurement of, A (1) 40.
and gases, apparatus for cleansing, A (12) 601.
preheating and preheaters, A (9) 394.
Air-separation method for clays, dry grinding clay to 80-mesh, description of two installations for grinding terra cotta clay, etc., A (11) 532.
methods; description of the application of air and centrifugal force and the design of machines for grading fine particles, A (7) 297.
methods used in fine grinding of rock products, A (6) 231, A (7) 297.
Alcamenes and the Establishment of the Classical Type of Greek Art, B (3) v3.
Alite, Le Chatelier's, $8CaO \cdot Al_2O_3 \cdot SiO_2$, in cement clinker, A (6) 210.
of Portland cement clinker, the compound $8CaO \cdot 2SiO_2 \cdot Al_2O_3$ as the, A (5) 167.
Tornebohm and the composition of, A (11) 541.
Alkali cyanides, occurrence and significance of, in the iron-blast furnace, A (6) 225.
metals, replacement of the sodium in glass by, and ammonium, A (6) 218.
Alkalinity, determination of, of different glasses by means of the quinhydrone ionometer of Prof. Luers, A (10) 479.
Alkalis, determination of, in soda-lime glass; methods used at Bureau of Standards and those recommended for routine work; accuracy to be expected, A (12) 615.
used in refining of metals, effect of, on refractories, A (9) 387.
Alpha quartz in lump quartz and beta quartz in quartz sand, A (10) 472.
Alteration, hydrothermal, of certain silicates, feldspars and spodumene, effect of different solutions at various temperatures and pressures, A (10) 468.
Alum, potassium, crystals, grown in presence of gelatin and dyes; adsorption at crystal-solution interfaces, A (11) 539.
Alumina and aluminates; recovery of alumina from calcium aluminates, P (10) 451.
-cement clinker; the mineralogy of several calcium aluminates occurring in, A (7) 262.
-cement concrete; French tests on; shows study needed, A (7) 260.

from clay, chemical method described, A (10) 448.
-containing cements; process of manufacture; raw material shaped into briquets and calcined, P (7) 264.
contents, the influence of blast furnace dust on the cone fusion point of clay material with various, A (6) 224.
determination of, in soda-lime glass, methods used at Bureau of Standards and those recommended for routine work, A (12) 615.
extraction of, by Bayer process, P (5) 183.
free, in bauxite, determination of, A (5) 192.
from natural silicates, P (5) 183.
from natural silicates, a new process for the preparation of, A (5) 181.
produced from clay by solution of the clay in acid, separation of the insoluble silicic acid from the solution, evaporation of the solution, etc., P (11) 531.
silica system, immiscibility in, A (4) 157.
silica system, melting points of mixtures within, A (5) 177.
Aluminit, highly refractory material, A (5) 180.
Aluminous abrasives, use of in manufacture of grinding wheels, development, present method, finishing and testing described, grades, control of composition, A (1) 2.
cement, or fused, setting of, A (4) 133.
mineralogy of, A (6) 207.
NaCl, $CaCl_2$, or CaF_2, added to raw aluminous cements, to aid the production of hydraulic compounds, P (7) 264.
raw materials comprising limestone, clay, iron ore, and siliceous rocks heated to 1100°C, P (8) 326.
rotary kiln process for, P (11) 500.
ores, process of treating, process of recovering aluminum from alunite ore, P (10) 541.
Aluminum chloride, process for the preparation of, P (9) 409.
from clay, acid extraction process for obtaining, A (12) 616.
from clay, manufacture of, by acid extraction processes, A (11) 539.
hydroxide, advantages of using, for making opaque glass, A (5) 170.
for the manufacture of opaque glass, A (5) 170.
manufacturing, from slags and similar materials containing compounds of lime and alumina, by leaching, P (4) 159.
oxide, thermal expansion of, A (3) 105.
sesquioxide of, study of the transformations observed during the calcination of, A (12) 618.
silicates, X-ray work on, A (7) 303.
sulphate from bauxite, P (12) 624.
Alundum, physical properties of, data on, A (2) 76.
Alunite deposits of Australia and their utilization, A (3) 106.
investigation of, from Australia, A (12) 613.
method of treating, P (7) 290.
method of treatment to produce a calcium aluminate cement and recovery of the potash, P (3) 107.
Amco "L" continuous glass melting tank, A (6) 214.
recuperator for industrial furnaces described and compared with other types, A (12) 604.
America, Old Blue Staffordshire in, A (6) 205.
American Assn. of Flint and Lime Glass Manufacturers report of meeting July 1927, A (10) 481.
AMERICAN CERAMIC SOCIETY at big mid-west meeting asks for research to aid in solving plant problems, A (2) 86.
meeting, A (6) 250.
American Face Brick Assn., report of 15th annual meeting, A (2) 86, A (3) 121.
American Geographical Society, expedition to Central Peru, A (12) 626.
American Refractories Inst. report of 3rd annual meeting, A (8) 346.
Amtorg Trading Corporation Catalogue, B (3) 123.
A.S.T.M. report of 30th annual meeting, A (9) 370.
Analyses, clay, technical, A (5) 191.
rational, error in, avoided, A (5) 191.
Analysis, chemical, of cement clinker at different positions in the rotary kiln, A (5) 166.
chemical. See also Chemical analysis.
of clays, rational, practical experience with, A (8) 359.
of Coal, Method of, B (12) 606.
complete, of fluorspar, new method for, A (5) 192.
cost, of cement material handling, A (5) 185.
of glasses, notes on the, A (11) 508.
silicate, A (5) 192, 193.
of the simple glasses; a critical survey of the method in use for the, A (6) 249.
of soda-lime glass, A (5) 170.
of Soil, B (4) 159.
spectroscopic, quantitative, A (5) 191.
standardization in chemical, A (4) 157.
Technical Methods of, B (12) 623.
tentative method for complete sand, A (11) 497.
use of the microscope in, A (5) 191.
Analyst, The, Decennial Index 1916–25, B (3) 119.
Ancient Egyptian Materials, B (1) 5.
potteries from the site of Rakka, A (7) 253.
Andalusite deposits of Nova Scotia investigated, A (3) 115.
measurements of crystalline, subjected to X-ray analysis, A (12) 593.
occurrence and mining of, in S.D., A (7) 301.
X-ray examination of, A (7) 303.
Anhydrite, notes on the chemical and microscopic determinations of gypsum and, A (5) 165.
Annealing device, full automatic fuelless, description of, A (7) 271.
of glass; dependence of the proper temperature on the composition of glass, A (7) 269.
of glass. See also Glass annealing.
hood, electric, including a pedestal to receive material to be annealed and a removable hood having electric-resistor troughs fixed therein, P (12) 581.
leer for glass, new type described, A (2) 53.
of optical glass, discontinuous change in refractive index at a critical temperature, A (1) 11.
oven with a movable partition, P (10) 464.
process, economics of the, A (9) 375.
Anomalous flocculation of clay, A (12) 620.
Anorthite-mullite-silica-magnesite, deformation behavior of the system, A (4) 148.
Anti-freezing agent for concrete prepared by dissolving bichromate or chromate of potassium in filtrate from a heated solution of calcium chloride, quick lime, or slaked lime and ammonium chloride, P (11) 502.
Antimony and arsenic in glass, the valence of, A (6) 216.
as a constituent of enamels, use of Sb_2O_4 and $NaSbO_3$ as opacifiers; impurities in, toxicity of, A (2) 50.
its compounds, A (8) 358.
occurrence of in British Columbia, Nova Scotia, Ontario, Quebec, A (12) 613.
oxide as opacifier for enamels, effect of organic acids on, A (8) 327.
Apparatus for burning oil, P (12) 610.
for carbonizing, P (10) 465.
for cleansing air and gases, A (12) 601.
continuous weighing, P (10) 456.
for determination of the apparent specific gravity and of the porosity of porous materials, A (7) 309.
of heat of evaporation of liquids of high boiling points, A (6) 241.
thermal expansion of solid bodies produced by the Optical Institution, A (5) 190.
dew-point, A (6) 242.
effecting chemical tests and controlling chemical reactions, P (12) 597.
for feeding molten glass to a container having an outlet at its bottom, a regulating member projecting downward into the glass over the outlet and controlling the discharge, P (9) 380.
for forming glass, the combination of a blank mold and a finishing mold arranged one above the other, a transfer head, a plurality of neck molds carried by the head, P (7) 280.

glass, composition, thermal expansion of, thermal resistance of, Pyrex, Silex, Vulkanit, Resista, 1923, Resista 1925, Tempax, Supremax, Durax, Jena Gerateglas, A (7) 274.
Thuringian, composition of, properties of, types of, A (2) 54.
volumetric, sources of error in, A (2) 52.
See also Glass apparatus and machine.
for grinding and separating material, P (10) 457.
for guiding and conveying hot glass ware, P (7) 281.
for indicating voltage stress for testing insulating qualities of units of high tension electrical transmission lines, P (12) 594.
for interrupting the tapping of molten masses, P (9) 395.
made from glass and ceramics, advances in the manufacture of works and laboratory, A (7) 310.
maintaining constant temperature and humidity for the storage of cement test specimens, A (7) 260.
measuring the thermal expansion of glasses and wires, and, A (6) 247.
and method of firing clay ware, which comprises sealing one portion of the kiln from another and passing gases through a portion of the seal, P (7) 300.
method of and, for grinding threaded members, etc., P (11) 490.
and method of mixing, grading, and sorting granular and pulverulent material, P (10) 456.
and method of shaping articles of glass, P (10) 438.
a new, for determining the fineness of grain of material, A (12) 596.
new specific heat, A (6) 241.
and process for feeding glass, the combination of a receptacle for molten glass provided with a discharge orifice, means reciprocating within the receptacle for repelling the glass through the orifice, P (7) 282.
and process for firing clay products, P (10) 465.
for reversing and controlling regenerative furnaces, A (9) 399.
shaping glass ware, a press mold for making glass blanks for pastemold glassware, P (7) 279.
take-down, P (10) 437.
transferring glass articles, P (10) 439.
transferring glass articles, automatic means for depositing articles in all the compartments of a carrier while the carrier is at the receiving position, P (7) 281.
of glass workers in the Swedish city of Orrefors, A (11) 491.
instruction in the potteries, A (7) 255.
line and form and general color effect discussed, A (1) 4.
and the Material, B (3) 93.
Peasant, in Europe, B (5) 200.
in pottery and glass trades, A (5) 165.
prehistoric American, reborn, A (4) 127.
for volume determinations, A (6) 230.
Who's Who in, B (11) 494.
Aqueous solutions of sodium silicates, heterogeneous equilibria of system: Na_2O–SiO_2–H_2O, at 25°C, A (6) 239.
of sodium silicates, silicate ions, electrometric titrations, diffusions, and calorimetric estimation, A (6) 240.
Arch brick, suggestions for the standardization of the dimensions of, A (10) 449.
Architecture, brick, concerning North German, A (3) 108.
chimney tops of the Antibes described, A (3) 108.
stucco and ceramic building material in the present, A (10) 451.
The Substance of, B (3) 93.
Arc-welding, device for, easily oxidizable wires, A (4) 153.
the New Age in Iron and Steel, B (3) 111.
Argiles Refractories, Les, B (8) 349.
Arkansas clay industry, expansion in during 1926–1927, A (12) 625.
Arnoud sand-lime brick plant, A (10) 443.
Arrangements, general factory, A (5) 175.
Arrhenius, Svante, obituary, A (12) 626.
Arsenic and antimony in glass, the valence of, A (6) 216.
determination of, in soda-lime glass, methods used at Bureau of Standards and those recommended for routine work, A (12) 615.
quinquivalent, determination of, in soda-lime glass, methods used at Bureau of Standards and recommended for routine work, A (12) 615.
in soda–lime–silica glasses, function of, effect of additions of niter in retaining arsenic, effect of on working properties, effect of reducing agents, amount of arsenic dissolved from glasses by various reagents, A (10) 430, A (10) 431.
testing of porcelain and glass laboratory ware for, A (11) 542.
trivalent, determination of, in soda–lime glass, methods used at Bureau of Standards and those recommended for routine work; accuracy to be expected, A (12) 615.
used in the firing of pure and aluminous alkali–lime–silica glasses, A (7) 271.
Art, an American university course in ceramic, A (12) 559.
ancient, reproduced in cement, A (4) 127.
applied, in Great Britain, A (2) 49.
and architecture, Spanish, advance of, into Canada, A (12) 558.
Baroque, A (6) 205.
commission appointed by Secretary of Commerce, report of, regarding the International Exposition of Modern Decorative and Industrial Art in Paris, 1925, A (3) 91.
Division Committees, report of, concerning training for potter and artist craftsman, abstracts of papers of interest to potter craftsman, the coöperative shop and its equipment and organization, A (3) 90.
education, curricula proposed to train artists with a working knowledge of ceramic technology, A (1) 4.
and future of commerce, a plea for closer relations, A (7) 256.
glass ware, new lines of, described; colored and crystal ware made by Paden City Co., A (1) 4.
Artificial jewels, methods of producing, compositions used in making, A (4) 136.
pearls, the production of mother-of-pearl decoration effects in glass and, A (4) 128.
stone, ceramic products, P (12) 628.
Artistic glass, German, A (7) 256.
Arts, International Exhibition of Modern Decorative and Industrial, B (12) 559.
Asbestos cement building materials, modern plant for manufacture of, in S. Africa, A (11) 498.
fibers, term "asbestos" applied to the serpentine group and the amphibole groups of minerals; thermal properties, A (9) 403.
products, molded, by heating just below point of fusion and subjecting mass to great pressure, P (9) 415.
Ashlar-setting clamp, P (6) 228.
Associated Glass and Pottery Manufacturers, flint glass exhibit of, A (3) 120.
Assyrian glasses of 2500-3000 years ago, composition of, A (7) 268.
Atomic weights, 33rd annual report of the committee on, determinations published during 1926, A (8) 359.
Australia, alunite deposits of, A (3) 106.
barite in, A (6) 239.
feldspar in, A (6) 238.
natural sources of energy in, A (10) 460.
Austrian magnesite industry, A (12) 626.
Aztec calendar stone of Montezuma and other relics of Aztec civilization found in Mexico City, A (12) 558.

Ball and china clays, an investigation of some, A (5) 198.
clays, an investigation of the properties of 13, A (9) 391.

Ball mill, air-swept, P (8) 356.
efficiency of, A (10) 483.
linings, rubber, A (5) 184.
with a material inlet orifice on one drum head and a material outlet for the case, P (10) 456.
working on the Hardinge principle, description of, A (10) 455.
Barite in Australia, A (6) 239.
Barites from Australia, treatment of, A (8) 358.
occurrence of, in Australia, A (12) 614.
Barium fluosilicate, heat of formation, thermal dissociation of, A (10) 472.
hydroxide aqueous solution, viscosity, and surface tension of, A (10) 479.
mechanical introduction of barium to clay bodies, 5 methods described, A (7) 282, A (8) 343, A (5) 195.
oxide–silica system, investigated for evidence of immiscibility, A (4) 157.
Baroque art, A (6) 205.
Basalt as an insulator, mechanical and electrical properties of, A (9) 392.
Basel, glass paintings in the art museums of, A (7) 268.
Basic open-hearth charge, refractory, materials used in repairing, A (1) 23.
Batch feeding to glass tanks, P (6) 220.
melting experiments with materials containing chemically combined water, A (6) 213.
Bauxite, B (12) 615.
brick for electric resistance furnace, properties of, A (10) 447.
decomposition of, with caustic soda without pressure, A (10) 471.
determination of free alumina in, A (5) 192.
and diaspor, studies on the properties of, A (5) 181.
in France, bill for the protection of the French aluminum industry, A (7) 289.
geology of, on Korlapat Hill, analyses given, A (12) 613.
heat of decomposition of, A (5) 181.
Hungarian, industry, A (10) 468.
in India, analysis of ore, production of, condition of market, A (1) 34.
occurrences of, in Nyasaland, A (5) 189.
ores, low grade, concentration of A (4) 133.
properties of, A (5) 181.
solution of, in caustic soda without pressure, A (7) 308.
in United States, A (4) 148.
Bayer process, extraction of alumina by, P (5) 183.
Bearing walls, fire and load test equipment for, A (1) 17.
Bearings, friction-horsepower of ball, roller, and plain, A (10) 455.
Belgium National Chemical Committee, report of, on chemical analysis of silicates, A (1) 40.
Belite, $2CaO \cdot SiO_2$, in cement clinker, A (6) 210.
Bellaire's glass industry, A (9) 378.
Bentonite, mining in Calif., analyses of material, formation of, A (1) 35.
occurrence of in Brit. Columbia, A (12) 614.
occurrence and mining of, in S. D., A (7) 301.
properties of, A (4) 133.
Beryllium and Its Congeners, B (2) 85.
Beta quartz in quartz sand, A (10) 472.
Bibliography, Complete, of English Journals and Magazines from 1620 to 1920, B (3) 93.
on heat transfer, A (9) 412.
Bicheroux process of making plate glass by casting and rolling the molten glass, A (11) 507.
Binders, glyptal glass of, used in molding, P (7) 296.
Bismarck brown, effect of on growth of potassium alum crystals, adsorption at crystal-solution interfaces, A (11) 539.
Bismuth, Gmelin's Handbuch, B (6) 248.
thermal conductivity of, A (6) 241.
Blake, Wm., and Josiah Wedgwood, work of, A (3) 93
Blast furnace, lining for, method of placing the blocks for a blast furnace lining, P (9) 390.
slag as a road material, A (8) 362.
causes for the decomposition of, and stability tests for this type of slags, A (9) 403.
containing titanium, A (10) 479.
method of treating, P (3) 122.
structural formulas for, A (10) 471.
Blocks, tank, design and service of, effect of, on the life of the tank, A (11) 505.
Bodies, colored, A (4) 127.
ivory, use more domestic clay, A (6) 229.
white ware, some, developed at the Ohio State University, A (5) 198.
Body making, standardization and plant control as applied to, A (5) 199, A (6) 228.
Boiler feed water, scientific treatment of, introducing the colloidal aspect, A (3) 121.
-furnace refractories, investigation of conditions as related to refractories service, A (2) 65.
modern waste heat, developments, A (11) 537.
Bolometer, a rapid, by sputtering on thin films, described, A (2) 84.
Bond for elastic grinding wheels and method of applying the same, P (8) 317.
Books, care and custody of, A (1) 40.
Borates, anhydrous, of silver, barium, and zinc, A (10) 473.
Borax, control testing of, in the smelting of enamel frits, A (7) 265.
new source of, found in Calif., A (7) 300.
process of decreasing the rate of crystallization of, from brine, P (6) 248.
process for the removal of, from alkali-metal nitrates, P (2) 85.
and soda ash stocks, control testing of, A (5) 198.
volatility of, A (9) 404.
volatility and dissociation of, A (1) 37.
Boric acid in silicates, determination of, A (6) 218.
Boric oxide–silica system, immiscibility in, A (4) 157.
Boron compounds, insoluble, process of mining P (10) 480.
Borosilicate glass, sodium-aluminum, production of, P (6) 248.
Bottle machine, the new British 15-arm automatic suction, A (10) 431.
milk, plant, a successful Pa., A (11) 507.
a new spiral gas washing, A (6) 248.
Bottles, machines for making, P (7) 279.
strain and hot water test for, A (1) 13.
tests of milk, compression, internal hydrostatic and tapping, A (4) 138.
-transfer mechanism, comprising a continuously rotating mold carriage, groups of molds thereon each constructed to deliver articles at a discharging station, P (7) 281.
Bowl insulating heat formed by covering bowl-shaped wire-gauze with plastic mixture of asbestos, sodium silicate, ground quartz, lead carbonate, borax and water, P (11) 535.
Brick, apparatus for producing, P (5) 176.
architecture, concerning North German, A (3) 108.
and brick making in the U. S., history of, A (2) 61, A (8) 362, A (11) 517.
building, A.S.T.M. specifications for, A (1) 19.
building, method of testing, in compression, A (11) 518.
and building tile in Texas, A (3) 103.
checker and lining, for water-gas manufacture, specifications for, A (1) 21.
use of super-refractories as, in gas manufacture, A (5) 195, A (6) 223.
work, a heat recuperative checker work comprising horizontal courses of hollow bricks, alternate courses crossing one another, P (2) 67.
Brick and Clay Record, articles covered during the last year, A (3) 121.
Brick, common, withstands fire tests, compared with concrete, A (1) 18.
corrosion, experiences with salty coal and, A (6) 227.
die having a recess for the formation of a boss upon a brick, a collapsible bottom for the recess, and means to press the bottom into the recess, P (8) 343.

engineering, A (6) 250.
in engineering and architecture, A (6) 221.
face, 270,000 daily, A (1) 19.
fireclay, a study of the spalling test for, A (5) 178.
firing, with boiler furnace stoker, A (3) 113.
firing, city gas successfully, A (5) 185.
flashed, firing, description of modern stiff-mud plant, A (2) 61.
flashing, in a tunnel kiln, method, colors obtained, use of oil, A (2) 61.
-forming mechanism, means for forming, cutting, and progressively molding certain of the edges of brick, A (3) 104.
hard common, a successful application of powdered coal as a fuel firing, A (6) 236.
hollow, tiles, etc., form for making, P (12) 587.
imported into Canada, marking of, A (1) 20.
industry of Canada, A (12) 586.
Canada, change in equipment used, A (4) 146.
in the U.S.A., progress of during last 100 years, A (10) 481.
kiln construction, P (7) 299.
kiln and drier, combined, P (7) 299.
kilns and their development in 50 years, A (6) 233.
ladle, description of manufacture of, A (3) 103.
machine, an ornamenting attachment for, P (7) 285.
machines old and modern, machines and methods used in Germany described, A (7) 283.
machines of the type in which the material is compressed upwardly against a hinged lid, the bottom plate or ram being carried by guide rods movable vertically to effect discharge and pressure, P (11) 520.
Brick making, human element in, A (2) 86.
machine, comprising an anvil plate, having a mold supporting surface and a pallet and means for withdrawing the liner plate from between the mold and the pallet, P (8) 356.
machines in which a pattern is formed on a face of a brick during molding by a sliding band, sheet, tapes, or chains extending over a face of the mold, P (11) 521.
machines in which the semiplastic material is formed into a shaped clot on a reciprocating slide by a reciprocating ram before it is fed to the mold by the slide, P (11) 521.
machinery, the combination with a pug mill having a discharge opening at one end of a pair of crusher rolls mounted adjacent the opening, P (7) 285.
method of making silica brick, using comminuted sulphur with diatomaceous earth, P (3) 107.
Brick, manufacture of, method of, consisting of mixture of clays to produce a product having an iron oxide content of 3% and less than 25% of lime, P (2) 63.
mason's firebrick guide, table of generally accepted firings and grinds for refractories for various types of furnaces, A (9) 386.
method of manufacturing, by forming with a compound composed of coal cinder washed with a very dilute inorganic acid, Kibushi clay, and silica sand, and firing in a kiln, P (11) 522.
of manufacturing, by mixing fire clay, clay containing iron oxide, iron powder, and water in suitable proportions, pressing, and firing at a high temperature, P (11) 522.
and means of baking, P (8) 358.
mullite, fire cone 28, in tunnel kiln, A (1) 24.
pavements, economy of, A (1) 19.
paving, ancient, A (6) 222.
conditions of the industry, A (3) 103.
description of manufacture of, A (3) 103.
effect of size of, on rattler loss, A (4) 145.
tests on 3½- and 2½-inch pavers by Bureau of Public Roads, A (1) 19.
plants, description of several, A (8) 342.
-pressing machine, P (1) 32.
process of texturing, P (11) 519.
process of veneering, consisting of moving a plastic clay column out of a die and moving powdered and granular particles of dry clay through a plurality of distributing tubes from which dry clay particles are forcibly ejected by steam jets, moistened and projected onto the plastic side and top surface of the clay, P (11) 519.
process of veneering, by forcibly projecting granular material into the plastic surface of the column by a fluid stream, P (11) 519.
-scoring apparatus, P (10) 444.
scumming and efflorescence, causes and prevention of, A (2) 61.
silica, problems, A (6) 225.
properties required for comparing various brands, A (1) 21.
question of firing, A (12) 590.
simplified, report of the Secretary of Commerce on the standardization of clay products, A (3) 103.
size, adopted by Canadian National Clay Products Assn. at 25th annual meeting, A (5) 195, A (7) 284.
size, the most favorable, A (11) 518.
sizes, standardization of, A (6) 222.
soft-mud, methods used by the Dennings Point Brick Works in manufacturing, A (11) 516.
standards and specifications for, research program outlined to formulate, A (5) 175.
stiff-mud, effect of water content and pressure of repressing on the porosity of, A (8) 342.
stiff-mud, study on the porosity of, A (9) 381.
strength of, specifications for various types, A (1) 18.
thin pavers, survey proves worth of, A (1) 19.
and tile industry in Manitoba, materials used, markets, characteristics of clays, A (2) 62.
and tile, opening new channels for, A (9) 381.
or tile, ornamental, process of giving marble pattern to, P (11) 532.
tunnel kiln for burning, described, A (3) 112.
unfired refractory, process of making, P (12) 590.
use of, in churches, A (10) 443.
wall, how strong is a, A (6) 250.
-wall investigation at Bureau of Standards, A (9) 381.
walls, program of research by Common Brick Manufacturers Association and Bureau of Standards, A (2) 61.
work, the decay of modern, A (8) 342.
work, North Italian, a study of brick detail used in the Lombard Plain of Italy from the Middle Ages through the Early Renaissance, A (8) 318.
Bricks, apparatus for handling, P (7) 285.
apparatus for and method of simultaneously texturing both ends of, P (11) 518.
arch, method of making, P (9) 390.
bung, typical chemical analysis of, A (11) 523.
clay, burning in annular kilns, P (5) 176.
composition and structure of fired, A (5) 175.
efflorescence of, caused by leaching out of sulphates of lime and magnesia, A (11) 497.
fireclay, A (6) 225.
fireclay, effect of steam on the transverse strength of, A (6) 223.
loading, apparatus for, P (11) 521.
refractory, A (6) 224.
refractory, notes on the flaking of, A (6) 225.
repressing, method and means of, P (8) 356.
sand-lime, best composition of, A (4) 146.
separator for, and method of piling same, P (11) 518.
and similar elements in building, apparatus for use in the laying of, P (4) 146.
spalling of, investigation of causes of, A (1) 17.
portable apparatus for transverse tests of, A (11) 536.
Brilliancy and composition of glass ware, A (5) 215.
Briquet firing, the introduction of, in the ceramic industry, A (8) 357.
British Empire clays of the, A (9) 400.
exhibit at Leipzig, A (12) 625.
mineral output during 1926, A (12) 625.
production of cement, census in 1924, A (9) 370
Bronze age village in Hungary, A (12) 558.

Brown coal briquets for firing, development of, and applications of, A (2) 72.
Brushings, Enameling House-organ, B (4) 134.
Buckeye Clay Pot Co., description of plant of, A (5) 195.
Buffer action in soils, mechanism of, rôle of salts in, A (12) 618.
Building activity for 1927, A (10) 442.
block and wall construction, P (5) 176.
construction, P (12) 628.
material industry, power plants in, A (9) 413.
method of manufacturing, P (11) 547.
Permeability of, to Water Vapor and Heat; Heat Transmission Tests through Walls of Insulating Material, B (2) 63.
materials, development stage in testing of, A (9) 381.
on the nature of influence of humidity changes upon composition of, A (6) 221.
working stresses in, recommended building code requirements for, A (3) 103.
Science, Introduction to, B (10) 444.
unit, a rectangular hollow building block or tile, P (9) 381.
unit, a reënforced hollow, P (9) 381.
wall and block construction of superposed blocks P (12) 587.
Bulbs, glass, development of, A (5) 170.
Bulk specific gravity of various ceramic bodies, A (2) 76.
Bureau of Standards Advisory Committee, report of meeting of, A (8) 361.
celebrates 25th anniversary of founding, A (2) 86.
list of ceramic research problems being investigated, A (7) 312.
methods for the chemical analysis of soda-lime glass, also recommended methods for routine work, A (12) 615.
Burettes and thermometers, a general utility reading lens for, A (6) 247.
Burner, in combination, a fuel pipe provided with a fuel discharge for delivering fuel for burning, spaced annular plates carried by the pipe, P (12) 610.
in combination with a pressure line, a burner in communication therewith, a reciprocating valve for controlling flow from the pressure line into the burner, P (12) 609.
Burners, blowpipe, oxyhydrogen, etc., P (12) 610.
pulverulent fuel, for delivering a mixture of finely divided fuel and air to steam boilers, metallurgical furnaces, etc., P (12) 611.
Bushing-insulator terminal, P (1) 31.
Business activity for year 1927, analysis of, A (9) 410.
Butler County, Mo., ball clays of, A (5) 188.

Calcination of limestone in electric furnace, P (6) 212.
process, effect of, on properties of Portland cement, A (6) 209.
process, X-ray study of, changes in lime and gypsum studied, A (10) 422.
Calciner, rotary, for magnesite, arranged so that the product can be withdrawn from different zones of the kiln, P (9) 390.
Calcining kettles and rotary kilns in the manufacture of plaster of Paris, comparison of the economy of the, A (12) 560.
Calcite, biaxial, examples of anomalously biaxial calcite and dolomite described, A (12) 612.
Calcium aluminates and high alumina cements, relation of cementing qualities of, to their reaction with water, A (11) 497.
mineralogy of several, occurring in aluminum-cement clinker, A (7) 262.
reaction of water on, the different, A (11) 497.
reaction of water on, studied at Bureau of Standards, A (12) 560.
Calcium ferrates, heat of formation of, A (7) 306.
hydroxide, the preparation and optical properties of, A (5) 190.
ramsayite, artificial, method of producing, optical properties of, melting point and specific gravity, A (7) 306.
silicate, heat capacity of, A (1) 36.
and sodium bisilicates, the solid solutions of, A (2) 76.
Calcium sulphate, the investigation of, III, A (11 540.
production of cement, SO_3 and lime silicate from, P (8) 326.
setting of dihydrates of, A (11) 541.
synthetic, used to make gypsum tile, A (7) 260.
x H_2O, reclaiming and the decrease in crystallization of the insoluble form of, A (3) 94.
Calco recuperator for industrial furnaces described and compared with other recuperators, A (12) 604.
Calcutta, India, industrial research laboratory at, A (2) 56.
Pottery Works, A (6) 229.
Calhoun County, Ill., preliminary report on the economic mineral resources of, A (6) 237.
California, new source of borax found in, A (7) 300.
Calimite electric furnace for burning limestone and gypsum, A (2) 49.
Calorex glass, properties of, A (3) 99.
Calorific value, apparent and actual, A (7) 304.
Canada, abrasives in, in 1925, A (6) 204.
clays of, A (6) 238.
gypsum products in, in 1925, A (6) 210.
statistics on manufacture of nonmetallic mineral products during 1926, A (9) 413.
talc deposits of, 3 types described, A (7) 302.
Canadian ceramic materials, lithia, cobalt oxide, nickel oxide, glauber salt, feldspars, A (7) 301.
Engineering Assn. adopts standard brick sizes, A (7) 284.
Canton Glass Co., 25th anniversary of, A (9) 377.
Capillarity and wetting, A (7) 308.
Capodimonite, story of the porcelain of, A (9) 367.
Capo di Monte, the origin and history of, A (7) 254.
Car transfer apparatus, P (2) 71.
Carbon, heats of combustion of different pure, existence of amorphous carbon, A (10) 474.
losses in form of coke particles and soot, A (5) 185.
monoxide, catalytic oxidation of, in contact with quartz glass, A (2) 75.
solid, combustion of, discussion of mechanism of the reaction; $C+O_2=CO_2$ and factors determining rate, diffusion theory of reaction discussed, A (12) 605.
solid, influence of rate of diffusion of oxygen on rate of combustion of, A (11) 540.
total, in coal determination by use of Mahler type bomb in a mercury sealed gasometer, A (11) 540.
Carbon dioxide in burnt lime, 2 methods of determining amount of, A (11) 497.
in carbonates, determination of, A (6) 245.
determination of, in flue gases by use of the thermal conductivity method, A (12) 601.
simple apparatus for determination of, described, A (1) 32.
Carbonates, determination of CO_2 in, A (6) 245.
Carbondale quadrangle, geology and mineral resources of, A (6) 237.
Carbonization of coal, low temperature, various systems described, A (9) 398.
low temperature, in connection with steam boilers and other furnaces, A (7) 312.
Carborundum as refractory material; increasing use in Germany, A (5) 181.
brick, data on physical properties of, A (2) 76.
brick for electric resistance furnace, properties of, A (10) 447.
Carder, Frederick, and his work, A (8) 362.
Carnegieite in surface deposits of glass-furnace regenerators, A (1) 10.
Casein compositions suitable for molding electric insulators, P (10) 428.
Cassiderite, an etching method for estimation and structure of tin oxide in, A (11) 540.
Cast iron for enameling purposes to be tested by applying enamel to each kind under a variety of conditions, A (11) 505.
refinement of, by shaking, description of process of J. Dechesne, A (2) 51.

research, 5th annual report of the Brit. Cast Iron Research Assn., A (3) 95.
Cast metals, interpretation of macrostructure of, A (1) 9.
Casting of clay and its application to art and industry, A (11) 533.
of clay ware, suggestions regarding use of sodium silicate, A (2) 69.
of clays and application to art and industry, A (8) 350.
in earthenware works, A (10) 484.
faults in alkaline slip, A (8) 351.
table, construction and design of, P (7) 278.
of ware, discussion on casting and glazing as an art, A (9) 368.
Castings, common defects in, causes of, A (7) 265, A (9) 373.
Catalogue of the George Eumorfopoulas collection of Chinese, Corean, and Persian Pottery and Porcelain, B (8) 322
Catalpo clay, method of production, uses, A (9) 414.
Catalyst for hydraulic cements, P (7) 263.
Caustification of sodium carbonate by ferric oxide, (10th report); thermal change of a mixture of Na_2CO_3 and Fe_2O_3 in CO_2 atmosphere and the use of the Nernst's micro-torsion balance, A (10) 469, A (12) 616.
Celite, $2CaO \cdot Fe_2O_3$, in cement clinker, A (6) 210.
Cellular gypsum compounds, method of manufacture, P (9) 372.
Cement admixtures, variable proportions of iron or aluminum hydrate added to hydraulic cements to prevent efflorescence, P (9) 373.
alumina, bauxite, and alumina calcined in rotary kiln; resulting clinker containing 11% iron oxide, P (9) 372.
Cement, aluminous, containing 25% alumina, 0.4–0.5 times alumina content of silica, with 3–3½ times silica content of lime, P (6) 211.
mineralogy of, A (6) 207.
or fused, setting of A (4) 133.
small amount of calcium chloride, fluoride, or cryolite singly or together, incorporated in Al cement mixture before burning, P (8) 327.
Cement and aggregate, American Concrete Institute papers discuss, A (5) 166.
ancient art reproduced in, A (4) 127.
base refractory materials, A (6) 225.
binders, future Swiss standards for, used in the preparation of mortars, A (4) 129.
British production of, census in 1924, A (9) 370.
burning process, an accelerated, P (9) 372.
in Canada, statistics on production for 1925, A (1) 7.
changes in physical state of, during setting, A (6) 208.
clinker, new system of cooling, A (6) 207.
competition with clay products, A (11) 544.
composition to form water- and wear-resisting, nondusting, concrete surfacing for floors and walls, P (9) 371.
or concrete, colored, P (12) 566.
concrete, and lime, investigations on study of, A (4) 133.
for dental use comprising magnesite as a base and plaster of Paris, P (10) 427.
determination of free lime in hydraulic, A (6) 207.
dolomite, history of and influence of burning temperature on character of dolomitic lime, A (12) 565.
fire-proof, several formulas given, A (9) 370.
floors and wall plastering, a new cheap, A (3) 95.
fused, P (8) 326.
manufacture of, P (6) 212.
process for manufacture in reverberatory furnace, P (4) 133.
and Gypsum, B (10) 427.
Cement, hydraulic, improving properties of, P (6) 211.
hydraulic, and process of making, P (12) 566.
impermeable acid-proof, P (11) 503.
industry, economy of waste heat installations in, A (10) 422.
industry, fifty years of, A (8) 325.
kiln for the firing of, P (6) 237.
kiln, rotary, P (10) 428.
or lime, method of manufacturing a hardening agent for, P (11) 502.
-lined water mains, A (10) 421.
litharge-glycerine, setting of explained, A (1) 6.
made from limestone, fullers' earth, and kaolin, A (10) 422.
Cement, magnesia, and colloidal silica, effect of, A (10) 422.
compounded principally of magnesia, slaked lime and magnesium sulphate or magnesia, magnesium chloride, and litharge or lead hydroxide, P (11) 500.
-oxychloride, U. S. Govt. Master Specifications for, A (9) 369.
process of manufacturing, P (11) 501, 503.
pseudo pottery of, P (11) 503.
Cement, magnesium oxychloride, aqueous vapor pressure of, and state of water in A (7) 262.
magnesium oxychloride, study of, with X-ray, A (7) 262.
-making properties, testing raw materials for, A (5) 166.
manufacture in Britain, 1926, A (10) 427.
manufacture of finely-ground limestone, silica, alumina, and ferric oxide, in the proportions to produce cement, P (12) 567.
masonry, U. S. Govt. Master Specifications for, A (7) 259.
material handling, cost analysis of, A (5) 185.
and materials containing blast-furnace slag, rapid determination of, A (12) 565.
materials, mechanical quarrying of, A (11) 498.
method of manufacturing anti-freezing agent for, P (11) 502.
method of manufacturing water-proofing agent for, by preparing salt of fatty acid and resinate by action of alkaline earth as magnesia on mixture of glyceride of fatty acid as olein oil and resin at ordinary or high temperatures, P (11) 547.
method of manufacturing water-proofing agent for, by saponifying a molten mass of resin, fatty acid, and paraffin with solution of caustic potash or potassium carbonate, P (11) 501.
mixture of pulverized limestone, alumina, silica, ferric oxide mixed in the proportion to make cement and coal dust added in certain amounts, P (12) 566.
mixture, rapid determination of silica and lime in raw, A (6) 208.
mortar, softening agent of, P (11) 502.
-mortar, water-proofing agent for, by heating a mixture of magnesium carbonate, asbestos, and powdered soap, P (11) 501.
newer measurements and observations of automatic furnace for burning, A (12) 565.
in 1926, A (6) 210.
oxychloride, comprising magnesium oxide, 1% of a mixture of 75 parts mineral oil and 25 parts beef fat, and magnesium chloride within percentages of 15–25 parts, P (5) 168.
oxychloride, process of manufacture, consisting of a mixture of MgO, $CaCO_3$ and an alkaline earth chloride, P (9) 371.
pastes, mortars, and concrete, consistence of, A (3) 94.
from phosphate residue, P (11) 500.
Portland, action of Na_2SO_4 and $MgSO_4$ on, reactions of white cement with these reagents differ from those of commercial Portland cement, P (1) 6.
standard specifications and tests for, A.S.T.M. C9–26, A (1) 6.
strength characteristics, a study of, A (5) 166.
Preparation, Properties, and Uses, B (11) 499.
processing, by passing molten cement directly into a special chamber, mixed with other materials, and subjected to a reducing action, P (6) 211.
products, coloring materials for, A (10) 423.
products mixture of fibrous material such as sawdust impregnated with a dilute solution of calcium chloride and mixed with dry

cement in proportion of 2.5–6, for making cast stone, etc., P (11) 500.
query, material asked for, that when applied to aluminum container in cold form will withstand boiling water for 3 months, A (3) 95.
quick hardening agent for, made by obtaining a sodium silicate rich in free silica due to sulphuric acid treatment of silicate, P (11) 503.
raw materials preparation of, for rotary kiln process, P (7) 263.
refractory, of 1 to 10 parts dry pulverized bauxite, 2 parts cement containing not more than 30% clay, P (6) 227.
from refuse, manufacture of, P (8) 327.
resources, nature, and manufacture of, and analyses of limestone, A (12) 564.
retort, consisting of Carborundum, sodium silicate, and water, P (9) 390.
from rock phosphate, process of manufacture, P (9) 372.
slurry, changes in viscosity and water content of, A (6) 209.
slurry, preheating, by means of waste kiln gases, P (9) 373.
specimens, testing small, A (10) 423.
strong, process of preparing, by mixing diatomaceous earth and alkali carbonate with Portland cement clinker, and pulverizing the mixture, P (11) 502.
structural formulas for, A (10) 471.
test specimens, operating results of constant temperature humidity box for storage of; description of apparatus, A (7) 260.
testing, coöperative checking of, variation in results due to methods used, and remedies for variation A (4) 131.
time as a factor in the study and use of, A (5) 166.
unsintered hydraulic, use of oil shale as a source of fuel and clayey material and the use of dry burnt lime is described, P (7) 264.
ware, fired, resembling pottery, P (11) 503.
Cement, water-proof, comprising 10 to 20 parts Portland cement to 1 part water-proofing material, including diatomaceous earth and hydrocarbon naturally occurring with water-proofing material, P (12) 566.
water-proofing agent for, consisting of lime, calcium chloride, barium chloride, ammonium carbonate, aluminium carbonate, aluminium acetate, gelatin, albumen, and water, P (11) 501.
agent for, prepared from fatty acid, albumen, soluble silicofluoride, and ammonia water, P (11) 501.
and quick-hardening agent for, composed of sodium bicarbonate, talc, and a small proportion of calcium carbonate or magnesium carbonate, P (11) 501.
white, method of manufacturing from dolomite, P (11) 502.
white, process of manufacturing, by firing a ground mixture of white-firing clay and limestone or quick lime with addition of alkali fluoride, cryolite, or fluoride of alkaline earth with a substance producing an alkali fluoride, P (11) 503.
Cementing material for joining ceramic articles consisting of lead borate and naphthalene, P (9) 371.
Cementitious material, plastic, consisting of 88 parts of hydraulic cement, 6 parts clay, 6 parts hydrated lime, P (7) 263.
process of manufacturing, by fusing in rotary kiln a mixture of lime and aluminous materials, P (12) 566.
Cements, acid-proof, by mixing water-glass solution with a powdered modification of silica, capable of strong reaction with alkali, P (12) 567.
alumina-containing, process of manufacture, raw material shaped into briquets and calcined, P (7) 264.
aluminous, mixture of 75% bauxite and 25% limestone calcined between 900° and 1100°C for 8–12 hours, P (6) 211.
and cement raw materials, rapid determination of lime in, A (12) 565.
colloidal theory of, A (10) 427.
Contribution to Knowledge of Fused Aluminous, B (11) 499.
controlling set of, by grinding set accelerators, such as calcium chloride mixed with a colloidal solution with the hydraulic cement, P (12) 567.
dental, physical chemistry of, A (12) 564.
effect of admixtures of $CaCl_2$ on properties of, A (8) 324.
effect of permeability of, on durability of reinforced concrete tanks, A (12) 564.
ferrous and aluminous, considerations on hydraulic compounds, theory of setting, effect of various compounds on setting properties, A (1) 7.
for glass and pottery, A (2) 68.
high-strength, early, A (8) 325.
hydraulic, catalyst for, P (7) 263.
hydraulic, from oil shale and limestone, P (6) 211.
iron and aluminous, investigation of hydraulic compounds in, A (6) 206.
magnesia, constituent proportions of; soundness and tensile strength, A (10) 423.
magnesite, compositions containing MgO and ferrous or cuprous chloride prepared with anhydrous chloride, P (9) 372.
magnesium oxychloride, control of components, formula for flooring cement, A (10) 427.
quick hardening, with high lime contents, P (8) 326.
research on, 5 decades of, A (8) 325.
slag, new test series on preparation of, A (10) 426.
slag, resistant to salt water, P (6) 211.
special, aluminous, electro-cement, a rapid-setting slag cement, A (10) 427.
special, rapid-hardening, aluminous, Portland, blast furnace slag cements described; aging studied, A (1) 7.
Ceramic Advisory Committee to Bureau of Standards, report of meeting, March 30, 1927; list of research problems given, A (7) 312.
Ceramic art course to train men to serve as creative ceramists announced at O.S.U., A (11) 491.
art education; suggestions on; courses proposed, A (1) 4.
articles, laminated, method of making, having a super-refractory facing, and a less refractory backing, P (3) 108.
articles and methods of producing, a method of casting a walled article which consists in rotating at a predetermined speed around an axis a body of slip, A (3) 110.
artists, development of course for training, A (7) 253.
blocks, fired, methods for producing, P (7) 290.
bodies, glazing, P (6) 230.
heat required to fire, A (7) 298.
heat required to fire, interval specific heat of 23 refractory clays, kiln efficiencies calculated, A (12) 615.
physical properties of, specific gravity, porosity, pore space, coefficient of linear expansion, heat capacity, thermal conductivity, electrical resistivity, compressive strength, tensile strength, modulus of elasticity, torsional strength, hardness, cone fusion, A (2) 76.
calculations, tables to facilitate, A (3) 116.
colors, a study of, and their use in vitreous enamels, A (11) 503.
decoration, contribution to technique of, A (8) 320.
design, need of school of, in Ohio, A (7) 255.
designs, original, America's lack of, A (6) 205.
development in Texas, A (5) 188.
fuels, use care in selecting, A (6) 212.
graduates, distribution of, A (4) 159.
industries, European, some aspects of, A (5) 199.
industry, British, dull, A (11) 546.
in Czechoslovakia, statistics on ceramic products of this country, A (10) 482.
in the U.S. as viewed by Zoellner of Germany, A (8) 363.

uranium in the, A (6) 205.
kilns, heat-balance of; complete heat-balance of a Hoffman continuous coal fired kiln, temperature-gradient curves, etc., thermal efficiency calculated, A (12) 601.
mass production awes AMERICAN CERAMIC SOCIETY, A (5) 195.
material consisting of alumina, silica, and a flux with their silica–alumina ratio close to that of sillimanite, P (8) 353.
materials, brand names of, A (12) 627.
members, method of making, consisting of extruding a member of initially semimoist dust, placing the member under restraint and drying while under restraint, P (9) 394.
petrography, development of; fundamental importance of microstructure, A (12) 624.
plants, heat utilization in, A (6) 229.
process and product, forming a bisque mixture of material with narrow range of contraction within firing range of temperature, P (8) 353.
production, Pa. leader in, A (6) 249.
Ceramic products, decoration of, A (11) 493.
plant for manufacturing, with pair of tunnel kilns, P (11) 519.
process for production of; adding soluble fluoride to clay to act as binder, P (7) 311.
relation of composition and heat treatment to industrial properties of, A (8) 359.
show gain in value in 1926 over 1927, A (12) 626.
stiff-mud, plant for manufacturing, P (11) 519.
twin tunnel type firing kiln in plant for manufacturing, P (11) 520.
Ceramic raw materials and products, research and test methods for, A (7) 304.
raw materials in the west, occurrence and utilization, A (9) 400.
research, conference on, A (6) 248.
Research Council and Institute, A (7) 311.
research, statistical methods in, A (5) 198.
resources of South, A (5) 187.
schools in America, list of, giving locations, dates of founding, and director of each of 15 schools in America, A (9) 410.
schools, too many? criticism; needs of ceramic industry, A (2) 85.
Society, (English) report of meeting, April, 1927, A (7) 312.
Society's (English) tour through Czechoslovakia and Austria, A (8) 362, A (9) 411, A (11) 545.
Technology, B (9) 415.
technology, terms and processes used in, defined, A (12) 626.
test methods, simple, A (11) 546.
tiling, the Holland tunnel and its, A (11) 545.
ware or materials, manufacture of, by use of amorphous silica (previously fused silica), ground and used in place of crystalline silica, P (12) 595.
ware, method of waterproofing, by soaking in solution of lime and calcium chloride; treating with solution of silico-fluoride, P (11) 532.
wares, foreign competition in American market for, A (11) 545.
Ceramics, advances in, and significance for chemical industry, A (3) 122.
advances in the years 1923–25, A (3) 122.
apparatus and process for firing, P (8) 358.
and chemistry; modern instruction in Germany, A (8) 363.
-Clay Technology, B (11) 547.
created, discussion of art products, A (3) 91.
effect of electromotive series of metals in, A (5) 165.
high-fired, A (12) 554.
hydrogen-ion control in, A (6) 239.
place of, in artistic life of today, A (10) 421.
Ceramists, Pocketbook for, 1927, B (5) 202.
unit organization of, for research promotion, A (3) 120.
Champion Porcelain Co., description of plant of, A (5) 195.
Chemical action; glass capable of withstanding abrupt changes of temperature, mechanical shock, and, A (5) 172.
Chemical Analysis, Calculations of Quantitative, B (12) 623.
of clays and cements, A (1) 41.
of coal, determination of sulphur in coal and coke, check determinations by the Eschka, bomb-washing, and sodium peroxide fusion methods, A (9) 402.
detection of small amounts of iron by use of thioglycolic acid, A (10) 469.
determination of alumina in silicate analysis, method described, A (7) 310.
of boric acid in silicates, A (6) 218.
of CO_2 in carbonates, A (6) 245.
of iron in red lead, A (7) 303.
of lead, bismuth, and sulphur, A (8) 360.
of silica in ores, slags, fluxes, and refractory materials in presence of fluorine, A (7) 305.
of sulphur dioxide in presence of excess air, A (7) 309.
of titanic acid in refractories, A (12) 619.
of trivalent iron in silicates insoluble in acids, A (10) 472.
estimation of ferric and ferrous iron, A (10) 469.
estimation of sulphate ion in small amounts, A (12) 619.
experiences in use of porcelain filtering crucibles in gravimetric analysis, A (9) 392.
fluorides, estimation of, methods summarized; new colorimetric method described, A (7) 306.
of fluorspar, A (9) 407.
of fused aluminous materials, A (7) 303.
of glass, detection of cadmium and arsenic in glass, A (1) 14.
of glasses, critical survey of the methods in use for analysis of the simpler glasses, A (10) 429.
of glasses, determination of silica alumina, magnesium, zinc, lead, iron, manganese, zirconia, cobalt, titanium, A (10) 430.
of glasses, note on methods used in A (6) 249.
of limestone, quicklime, and hydrated lime, A.S.T.M. method for, A (1) 36.
of mixture of fluoride, and sand silicates, A (3) 117.
of refractories, A (6) 249.
of refractories, notes on, A (10) 445.
of refractory materials; table showing analyses of raw clays from various producing districts, A (12) 616.
separation of vanadium from columbium, tantalum, and their mineral associates, A (8) 360.
separation of vanadium and tungsten, A (8) 360.
silica in cements, quantitative determination of, by means of membrane filter, A (8) 324.
of silicate slags, determination of SiO_2, Al_2O_3, CaO, A (10) 458.
of silicate slags, notes on A (6) 249.
of silicates, determination of ferrous iron in, use of diphenylamine as indicator, A (9) 402.
of silicates, report of Belgium National Chemical Committee on, A (1) 40.
of soda-lime glass, methods used by Bureau of Standards; recommended methods for routine work; results on standard sample No. 80, A (12) 615.
of tin, potentiometric titration of tin with potassium bromate, a method of determination Sn in presence of Sb, A (1) 37.
of zirconium glasses, A (1) 13.
Chemical composition, dependence of fusion point of clay on its, A (11) 540.
composition of glass containers, composition of hand-made glasses compared with glasses used on automatic machines, A (2) 53.
Engineering Economics, B (6) 248.
Engineers, Institute of, A (1) 37.
Lime Company's new hydrating plant, A (10) 422.
the Making of a, B (12) 623.
and microscopic determinations of gypsum and anhydrite, notes on, A (5) 165.
Patents, Law of, B (9) 414.
porcelain, data on physical properties of, A (2) 76.

reactions in mixtures of solids at high temperatures, A (10) 472.
resistance of glasses, A (5) 171.
stoneware bodies, some physical properties, A (9) 400.
Chemist in the ceramic industry, A (10) 471.
Chemistries, Old, B (12) 623.
Chemistry, analytical, and its services in manufacture, study, and uses of Portland cement, A (12) 563.
Applied, Progress of; Annual Report, 1926, B (6) 248.
ceramic progress in, during past 50 years, A (4) 160.
of coal, A (12) 617.
colloid, of clays and kaolins, note on, A (5) 191.
colloidal, as aid in understanding of casting process; also plasticity, bonding power, and drying properties of clays, A (4) 160.
Comprehensive Treatise on Inorganic and Theoretical, Vol. VI, Carbon (part II), Silicates, B (4) 159.
Essays on Art and Principles of, B (8) 361.
Inorganic, B (7) 311.
inorganic, progress of, A (7) 305.
physical, aid in determining compounds and eutectics in mixtures, A (4) 160.
physical, of dental cements, A (12) 564.
of silicates on basis of coördination theory, A (12) 622.
Chilean nitrate law, A (11) 539.
Chimney construction, development of, A (9) 413.
China clay, description of process of purification used at Claremont S. Africa, A (12) 613.
investigation at Bureau of Standards, progress report on, A (9) 413.
an investigation of the properties of 7, A (9) 391.
some pottery, and their derivation from altered granite rock, A (4) 155.
from S. Africa, A (11) 533.
S. African, comparative trials of washing made on raw clay; physical tests on raw clays and earthenware bodies; drying and firing shrinkage, A (10) 467.
China clays in Africa, A (6) 238.
China, Sino-Lowestoft, description of pieces found in Met. Mus. Art, A (1) 4.
China ware, decorated, method of making, P (11) 494.
dining-car, list of types and shapes, A (1) 30.
discussion of bodies and glazes, A (10) 453.
mechanical testing of; apparatus, method, impact strength on ware from 13 companies, A (7) 292.
Chinese ceramics, 2 recent acquisitions of, in the Met. Mus. of Art, A (7) 255.
porcelain, data on physical properties of, A (2) 76.
Pottery, Eumorfopoulos Collection of, Described, B (1) 4.
Chloride and metallic sulphates, effect of, on hardening of sand-lime mortars, A (5) 166.
Chlorine, determination of, in soda-lime glass, methods used at Bureau of Standards and recommended for routine work, A (12) 615.
Chrome brick for electric resistance furnace, properties of, A (10) 447.
Chrome green, manufacture of, A (12) 620.
Chromite, occurrence of in Brit. Columbia and Quebec, A (12) 613.
thermal expansion of over, interval 25–1400°C, A (10) 449.
Chromium and its congeners, B (2) 85.
oxides of; relative stabilities of, decomposition diagrams at constant pressure, A (1) 37.
sesquioxide of, study of the transformations observed during the calcination of, A (12) 618.
uses, and resources, A (12) 588.
Chrysler Motor Co., enameling plant of, A (5) 195.
Chrysoberyl, structure of, A (9) 404.
Ciment fondu composition, P (6) 211.
Clamp, ashlar-setting, P (6) 228.
Clarksburg's glass industry, A (7) 272.
Classes, technical, for pottery and glass trades, A (12) 625.
Classifier, air, P (8) 355.
whirlpool, and classifying process, P (8) 354.
Clay acid, physico-chemical properties of, diameters of particles measured with ultramicroscope, A (10) 470.
air separation of, equipment for, A (4) 153.
analysis for control purposes, A (12) 619.
anomalous flocculation of, A (3) 116, A (12) 260.
bars, elimination of lamination in, A (5) 195, A (16) 221.
blue, preparation of a, P (11) 532.
carbonized, an acid resistant refractory, method of manufacture, properties of, A (3) 107.
casting of, and application to art and industry, A (11) 533.
catalpo, method of production, uses, A (9) 414.
characteristics of, A (12) 621.
china, comminuting, P (5) 185.
china, decolorizing, P (11) 543
and clay products in Ga., A (5) 188.
colloidal properties, action of various electrolytes on clay suspensions, A (1) 41.
colloidal, selective absorption of ions by, A (12) 619.
colloidal, of soils, A (10) 470.
data on properties of, that are required in purchasing, A (10) 452.
dependence of fusion point of, on its chemical composition, A (11) 540.
deposits of S. Australia, A (12) 614.
deposits, valuation of, A (10) 468.
domestic, ivory bodies use more, A (6) 229.
dry grinding to 80-mesh, description of 2 installations for grinding terra cotta clay, advantages of finely ground clay and use of air separation are described, A (11) 532.
gas flues, draft comparison of cement and, A (5) 174.
grinding, economics in quantity production in, A (4) 145.
heavy, products industries, papers of interest to, A (6) 250.
indispensable element in world, A (4) 148.
industry, costs and accounting applied to, A (5) 199.
industry, fuel in, A (6) 234.
Japanese acid, absorptive and decolorizing powers, composition of, presence of rare earths A (10) 467.
layers in N. J. and the ice sheet, A (12) 613.
machinery, exhibit of, at Common Brick Mfgrs. of Amer. meeting, A (5) 175.
machinery exposition at Chicago, A (5) 175.
manufacture of aluminum from, by acid extraction processes, A (11) 539.
material, apparatus for forming dovetail or undercut recesses in, P (8) 355.
material, the influence of blast-furnace dust on cone fusion point of, with various alumina contents, A (6) 224.
method of preparing, for manual training, by mixing small amounts of wheat flour and pigment to clay, P (11) 496.
mines, Cornish; U.S. purchase of, by Papermaker's Importing Co., A (11) 546.
Clay mining, description of method of, A (9) 409.
development of, during past 50 years, A (5) 176.
notes on, experience of workers in related fields of mining activity, A (9) 409.
underground, items requiring consideration in, A (5) 195.
underground; 2 systems considered, A (12) 624.
Clay ornaments, process of manufacturing, P (11) 532.
and other minerals in Great Britain, output of, A (4) 156.
Clay pipe, preparation of, A (10) 443.
vitrified, A (4) 146.
vitrified, history and manufacture of, A (11) 517.
vitrified, used in the construction of sewers, etc., A (11) 517.
plants, comparison of, methods of winning and purifying clay, A (7) 283.
porcelain, in Japan, A (4) 156.
pots made by Willets Co. with 57 years' experience, A (5) 180.

Clay products, factors other than manufacturing entering into cost, A (6) 250.
Industry and Sand-Lime Brick, Census of Manufacturers, B (10) 444.
manufacture of, statistical data, A (3) 121.
plant, design of, employing tunnel kiln, A (7) 282.
simplification and classification of, A (11) 545.
strengthened by incorporating with raw mixture composition consisting of cyanite crystals, P (11) 531.
Clay properties, valuation of, A (4) 156.
purification of, A (10) 484.
removal of iron from, process for purification, P (9) 409.
shapes, large, for window-glass industry, A (6) 249.
shapes for window-glass industry; service requirements of special shapes for Lubbers, Colburn, and Fourcault window-glass machines, A (12) 586.
Clay slips, dehydrator of, P (8) 355.
effect of various sodium silicates and other electrolytes on, A (6) 228.
faults in alkaline slip casting, A (8) 351.
P_H and electrical conductivity; laboratory study, A (9) 401.
P_H of, and electrical conductivity of; plant study, A (8) 350.
study of changes in viscosity of, and glaze suspensions on aging and by treatment with electrolytes, A (8) 350.
Clay slurry, pumping, through a four-inch pipe, A (12) 559.
and soda-lime glass reaction, experiments on study, A (12) 586.
softening of, by heat, A (7) 304.
some thermal characteristics of, A (5) 198.
S. African china, comparative trials, A (10) 467.
substance, contribution to knowledge, A (7) 311.
tempering and expressing apparatus, P (7) 285.
treating, by boiling with reagent, etc., P (11) 543.
vital phases of constructive work in, A (4) 127.
Clay ware, factory design, equipment, and manufacture of, A (3) 103.
hidden and unexpected costs in manufacture, A (4) 145.
process of removing iron from, P (11) 547.
Clay-washing plant described, A (9) 409.
Clay working, new ideas in, A (5) 195, A (7) 282, A (11) 517.
Clay-zirconium-oxide system, melting points of mixtures within, A (5) 177.
Clays, ball, of Butler County, Mo., A (5) 188.
brick, tile, and pottery, in Nigeria, A (6) 239, A (9) 400.
of Brit. Empire, A (9) 400.
of Canada, A (6) 238.
casting of, and application to art and industry, A (8) 350.
ceramic properties of some white-burning clays of the Eastern U. S., etc., A (10) 466.
china, in Africa, A (6) 238.
colloidal properties, in connection with deposition of clay beds, A (2) 75.
colors in, causes of, A (8) 342.
discoloration of, during firing, effect of presence of sulphur dioxide and water vapor, A (5) 195, A (9) 396.
dried; modulus of rupture of, as measure of plasticity, A (6) 240.
drying characteristics of, laboratory procedure for determination, A (3) 120.
drying and firing of, theories in connection with, A (11) 546.
drying properties of, A (7) 283.
elasticity and transverse strength of, at high temperatures, A (1) 22.
fat highly refractory; flowability of, A (11) 528.
fire, U. S. Govt. Master Specifications for, A (1) 21.
for glass-house pots, properties desirable, composition, A (8) 344.
heavy, physical properties of, A (6) 221.
of India, A (6) 238.
and kaolins, note on colloid chemistry of, A (5) 191.
and kaolins, on relation between, A (12) 615.
of Lake Agassis Basin, Can., properties, composition of, A (1) 35.
lake, of Sault Ste. Marie area, A (6) 238.
of Manitoba, A (6) 239.
melting point of, influence of grain size of fluxes and lean materials upon, A (7) 288.
of New S. Wales, origin, distribution, industrial uses, A (2) 74.
permanganate value, A (12) 619.
plastic, method of determining workability, A (5) 195, A (5) 198.
pottery and brick, geology of country around Stoke-on-Trent, A (3) 123.
pottery china, and the granite from which they are derived, mineralogical constitutents, kaolinic alteration of feldspar in Devon and Cornwall district, A (10) 466.
purification of, process and apparatus for, P (2) 88.
purification of, removal of iron, P (2) 88.
refractory, chemical analyses of raw clays from various producing districts of the U. S., A (12) 616.
refractory, interval specific heats measured, method and apparatus described, 23 clays investigated, temperature range 20–1100°C, A (12) 615.
sagger, progress report on investigation of, as carried out by Bureau of Standards, elasticity and transverse strength of, at several temperatures, A (8) 350.
of Saskatchewan, properties, distribution, types, A (8) 363.
shales, and other dry and semidry materials, apparatus for grinding, P (11) 537.
S. Australian, A (12) 586.
and special refractories, thermal expansions of, A (4) 157.
specific heat and heat tone of, A (7) 298.
surface, and shales, interval specific heat of, A (12) 615.
Swabian, A (5) 189.
Their Occurrence, Properties and Uses, B (10) 485.
Clays, thermal characteristics of, A (5) 195, A (9) 400, A (12) 587.
winning of, with a cable excavator, A (4) 145.
X-ray analysis of, means of determination of relation between size of particles and cohesive properties of clay, A (7) 309.
Clayware bodies, strengthening, by use of gums, A (1) 19.
Clayworking industries, lack of schools catering to artistic fields in, America's, A (6) 205.
machinery used in Europe, box feeders, double-deck grinding pans, scraper excavator, A (10) 454.
plants of Quebec, Nova Scotia, and New Brunswick described, A (3) 103.
Clinker, constitution of cement, and composition of raw mix, A (12) 561.
industry, description of 16-chamber Mendheim kiln, A (7) 284.
Its Applications and Preparation, B (10) 450.
production of, A (10) 443.
Cloth, wire, for test sieves, (German), A (6) 231.
Coagulation, mechanism of, A (10) 476.
Coal ash, relation of fusibility, to formation of clinkers, A (6) 235.
Coal, calorific power of, graphic method for determination of, A (10) 461.
carbon ratios of, as index of oil and gas, A (8) 357.
chemistry of, A (4) 148, A (12) 617.
cleaning, comparison of processes, A (9) 39.
cleaning of, with special reference to pneumatic separation, A (10) 460.
low priced fuel for enamelers, A (6) 212.
low temperature carbonization of, various systems described, A (9) 398.
Method of Analysis of, B (12) 606.
most important industrial fuel, A (6) 235.
Coal powdered, burning, under boilers, A (9) 411.
contribution to calculation of combustion of, A (8) 357.
in German glass field, A (6) 236.

successful application of, as tunnel kiln fuel firing hard common brick, A (6) 236.
Coal, pulverized, fineness and structure of, A (6) 234.
purchase of, factors governing, A (12) 601.
Spontaneous Combustion of, B (2) 72.
supplies and utilization, A (12) 502.
Coals, mid-western, burning, A (12) 602.
Cobalt, Canadian production for 1926, A (12) 613.
green compounds of, conditions of formation, A (9) 407.
hard-fired, effect of other oxides in glaze on color of, A (11) 492.
-oxide-silica system, immiscibility in, A (4) 157.
underglaze decoration, batch formulas, A (8) 320.
Coefficients of expansion at low temperatures, measurement of, A (3) 118.
of various ceramic bodies, A (2) 76.
Coke oven with coking chambers wider at one side than at other, with flue walls between and a line of combustion flues in each flue wall, P (2) 607.
construction, trend in design in modern, its bearing upon refractory materials, A (9) 385.
with gas supplied to burners through conduits passing vertically through regenerator structures, P (12) 611.
Colburn window glass machine, service requirements for special clay shapes for, A (12) 586.
Colloid Chemistry, Practical, B (1) 38.
Colloidal clays, adsorption and mobilization of potassium ions in, A (10) 472.
earth in soap making, A (9) 414.
particles, sedimentation of, A (12) 620.
properties of clays in connection with deposition of clay beds, A (2) 74.
silica, effect on cements, A (10) 423.
effect on lime and lime hydrates, A (10) 423.
utilization in cements and cement mortars, A (10) 423.
soil materials, properties of, A (12) 622.
solutions, rigidity and other anomalies in, A (12) 621.
Colloids, clay, of soils, A (10) 470.
precipitation of, influence of nonelectrolytes on, by electrolytes and on adsorption of ions, A (10) 477.
Cologne cathedral windows, A (8) 320.
combinations, means for determining, P (8) 322.
constants of, hue, purity, and luminosity, A (5) 164.
effects, proper use of, in potteries, A (7) 255.
practice in ceramics, A (9) 368.
of rocks, quantitative determination of, A (12) 612.
standardization, a vector colorimeter described, A (2) 84.
standards and color measuring A (6) 206.
study of, and application to ceramic art, A (8) 318.
theory and application to ceramic art; study of, A (5) 198.
tints, why impossible to obtain deep, bright, full, in cover glazes, enamels, etc? A (11) 505.
Colored enamels, study of ceramic colors and their use in, methods of applying, effect of enamel composition on color; batch formulas given, A (11) 503.
fusions, studies on, A (9) 368.
glasses investigated by National Physical Lab., A (9) 411.
glazes, determination of tint of, on basis of Ostwald's color theory, A (7) 255.
Coloring agents for glass mixtures, composition of batches given, A (7) 273.
properties of chromium, cobalt, and iron oxides, effect of zinc oxide on, A (3) 91.
stains, study of ceramic colors and use in, methods of applying colored enamels, effect of enamel composition, batch formulas given, A (11) 503.
Colors, cement, properties and testing of, A (11) 499.
for ceramic products, how to choose, A (7) 253.
uranium oxide, and crystals in low temperature glaze combinations, study of color and crystallization in uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, both alone and with addition of certain organic compounds, A (11) 539.
Combustion chamber material, investigation of premature failure of, A (6) 225.
efficiency, with reference to powdered coal, A (9) 398.
engineering and development during last 50 years, A (9) 398.
of fuel in furnaces, apparatus and method of control, P (12) 608.
heat-capacity-temperature diagram of, and efficiency of furnaces, A (10) 461.
optimum content of carbon dioxide in spent gas, A (10) 461.
process, effect of preheated air on, A (7) 298.
processes, theory of material conversion in, A (7) 299.
of solid carbon, a discussion of mechanism of the reaction; $C+O_2=CO_2$ and factors determining rate; diffusion theory of reaction is discussed, A (12) 605.
temperature of, and fuel consumption, A (12) 605.
velocity and equilibria in combustion, A (10) 461.
Composition of antique glasses, color and, A (5) 165.
and brilliancy of glass ware, A (6) 215.
of building materials, on influence of humidity changes upon, A (6) 221.
$8CaO+Al_2O_3+2SiO_2$, the, A (6) 239.
of iron blast furnace slags, A (6) 239.
for and method of coating metal surfaces, P (12) 569.
and structure of fired bricks, A (5) 175.
Compositions, plastic, of raw or calcined magnesite heated with fluxing material; resulting clinker ground and mixed with solution of magnesium chloride, P (11) 500.
Compound $CaO \cdot Al_2O_3$, $3CaO \cdot Al_2O_3$, found in Portland cement clinker, A (6) 209.
$2CaO \cdot SiO_2$, found in Portland cement clinker, A (6) 209.
$3CaO \cdot Al_2O_3$, in cement clinker, A (6) 210.
$3CaO \cdot SiO_2$, in cement clinker, A (6) 210.
$3CaO \cdot SiO_2$, existence of, definitely proved, A (6) 209.
$3CaO \cdot SiO_2$, found in Portland cement clinker, A (6) 209.
$5CaO \cdot Al_2O_3$, in cement clinker, A (6) 210.
$5CaO \cdot 3Al_2O_3$, found in Portland cement clinker, A (6) 209.
$8CaO \cdot 2SiO_2 \cdot Al_2O_3$ as the "alite" or Portland cement clinker, A (5) 167.
$8CaO \cdot 2SiO_2 \cdot Al_2O_3$, existence of, definitely proved, A (6) 209.
$8CaO \cdot 2SiO_2 \cdot Al_2O_3$, found in Portland cement clinker, A (6) 209.
Compounds, chemical, and solid solution, A (6) 246.
coördination, 3rd species of atomic linkage, A (11) 542.
Compressive strength of various ceramic bodies, A (2) 76.
Concrete aggregate, qualifications of different kinds of natural stone as, A (5) 166.
cellular, made by blowing foam forming liquid into mass while in mixing chamber, applications of, A (4) 129.
density of, and water-cement ratio, A (6) 206.
improved by use of diatomite, A (6) 210.
lean (poured), use of, in construction of houses, porous structure prevents passage of heat, A (4) 129.
or mortar, water-proof, P (11) 501.
the new era in, A (3) 94.
and other silicate wares, method of reinforcing, by soaking in molten sulphur, A (11) 547.
quality, water-cement ratio as basis of, A (5) 166.
strengthening and indurating, with sulphur, increases strength and decreases absorption A (1) 7.
surface, acid-proofing, process of, P (11) 503.
Yearbook, B (6) 210.
Concretes and mortars, autogenous healing of, A (4) 132.

Conduction, equation of, in unipolar nonmetallic films, A (12) 618.
Cone-deformation point of clays, influence of grain size of flux and materials used to decrease plasticity of clays on, A (7) 286.
studies, platinum-wound resistance furnace for use in, A (7) 296.
Cone fusion point, the influence of blast-furnace dust, of clay material with various alumina contents, A (6) 224.
of various ceramic bodies, A (2) 76.
Constitution of glass, new ideas, A (6) 216.
of kaolin, A (6) 241.
of Portland cement, A (5) 167.
Construction, kiln, A (5) 185.
Continuous kiln for firing brick, etc., P (12) 610.
Control methods in ceramics, hydrogen-ion control in ceramics, A (6) 239.
technical, of automatic production in glass factories, A (6) 215.
technical, in mass production glass works, A (5) 171.
Controlling unit for oil burners, P (12) 597.
Convention, 9th annual, of the Hollow Tile Assn., A (5) 199.
23rd annual, of the Sand-Lime-Brick Assn., A (5) 199.
of Common Brick Mfgrs. Assn., program of, A (5) 175, A (6) 250.
40th annual, official report of National Brick Mfgrs. Assn., A (4) 145.
Convection currents and insulation, A (10) 448.
of heat in gases and liquids, A (6) 243.
of heat and similitude, A (6) 243.
Convective cooling, natural, of wires in gases, A (6) 243.
Conveyer mechanism including an endless cable traveling in horizontal path, conveyer body along one reach of the conveyer path with bottom and sides a plurality of blades fitting across within and sliding along conveyer body, P (12) 598.
Conveyer, rotatable, formed so as to provide open-ended helical trough with circumferential edge adapted to engage and lift material into trough, P (12) 598.
systems, specifications for handling tile, A (10) 454.
Conveyers for ceramic plants, various types described, A (9) 394.
Conveying apparatus; mold carriage; transfer mechanism of carrier, automatic means to cause it to travel in register with molds, P (7) 281.
Conveying, pneumatic, of gritty materials, principles of, apparatus used, A (4) 153.
Cooling, experimental study of forced convective, in viscous liquids, A (6) 245.
forced convective, in viscous gases and liquids, A (6) 245.
forced convective, of wires in gases, A (6) 243.
natural convective, in viscous gases and liquids, A (6) 244.
natural convective, of wires in gases, A (6) 243.
Core drill, P (12) 597.
Corning Glass Works, Pyrex industrial glass products offered by, A (5) 171.
Corrosion, brick, experiences with salty coal, A (6) 227.
and erosion phenomena, their bearing on macrostructure of refractories, A (6) 214.
ferrous metallurgy and, A (6) 213.
of steel furnace refractories, A (6) 226.
Corundum, A (4) 126.
in surface deposits of glass-furnace regenerators, A (1) 10.
from Union of S. Africa, A (8) 358.
Cost accounting applied to clay industry, A (8) 362, A (10) 482.
applied to the pottery industry, A (10) 484.
distribution of expense items in, A (12) 625, 3 methods of, A (8) 361.
Cost, Determination, Rapid, Combined with Constant Control of Operation in Ceramic and Mining Industry, B (1) 45.
estimating and records in firebrick industry, A (1) 21.
finding and plant management, A (9) 411.
Costs and accounting as applied to clay industry, A (10) 482.
Cottrell process for electrical precipitation of smoke, A (1) 40.
Cristobalite, microscopic investigation of α and β inversions of natural cristobalite, A (10) 472.
microscopic study of transition of, from α to β form, A (2) 76.
Crolius stoneware and early American, A (10) 419.
Crucible, a carbon, stable at very high temperatures, A (12) 590.
linings free from carbon made of arcofrax-silica composition, A (11) 527.
linings, methods of preparing and handling, made of arcofrax-silica, A (11) 527.
porcelain, P (6) 230.
Crusher, dry pan, P (7) 297.
Crushers, jaw, disk, and roll, study of sizes produced by various types of crushers, A (7) 297.
Crushing strength of chemical stoneware bodies, A (9) 400.
Cryolite, effect of, on tone of colored enamels, A (11) 503.
mining, milling, and utilization, A (12) 615.
studies on volatilization of, A (10) 471.
Crystal habit, effect of dyes and gelatin on, A (11) 539.
Crystallization of borax from brine, process of decreasing the rate of, P (6) 248.
forced, investigation of glassy state by method of, A (6) 213.
imperfect, of common things, A (6) 246.
metastable and labile states discussed, A (9) 404.
power of, to determine the so-called, A (2) 76.
in solid state, mechanism of, A (7) 309.
Crystallized bubbles, A (10) 471.
Crystallography, progress in, dynamics of crystal lattice and intensity of X-ray reflection, A (7) 306.
Crystals, growth of, adsorption of crystal faces, growth and solution of single copper sulphate crystals in presence of gelatin and dyes, A (9) 400.
in low temperature glaze combinations containing uranium oxide, study of color and crystallization of uranium, lead, sodium and boron glazes fired in oxidizing atmosphere, alone and with addition of certain organic compounds, A (11) 539.
mixed, G. Tammann's doctrine on structure of, A (7) 303.
potassium alum, grown in presence of gelatin and dyes, study of adsorption at crystal-solution interfaces, A (11) 539.
Researches in the Science of, Habit of Crystals, B (10) 480.
Cumberland, glass houses, A (6) 214.
Cyanite, calcined, effect of, in porcelain bodies, A (3) 109, A (7) 291.
-clay refractories, physical properties of, A (11) 522.
-clay refractories, properties of, A (10) 447.
and diaspor refractories, A (11) 522.
and sillimanite, (India), A (5) 180.
structure of, A (9) 404.
X-ray examination of, A (7) 303.
Cylinders, means for supporting rotary, P (12) 596.
Czech ceramic terminology, A (10) 473.
Czechoslovakia and Austria, the English Ceramic Society's tour in, A (9) 411, A (11) 545.
ceramic industry in, A (12) 627.
ceramic industry in, statistics on ceramic products of this country, A (10) 482.
Ceramic Society, report of, at the International Congress of Chemistry, Bucharest, June, 1925, A (1) 39.
Czechoslovakia, Zettlitz kaolin in, properties enumerated, A (1) 34.
Czechoslovakian tile plant described, capacity, wages of employees, $\frac{1}{4}$-inch tile manufactured, A (2) 68.
workers, low wages paid cause of low selling price of china ware, A (9) 412.

Data, heat-transmission, bibliography of, A (2) 66.
on interval specific heats of 23 refractory clays over the temperature interval 20–1100°C, A (12) 615.
pertaining to manufacturing methods employed in ceramic plants in Ohio, A (3) 122.
on physical properties of ceramic bodies, A (2) 76.
research, on glass, enamel, and pottery, A (8) 361.
Debiteuse blocks for the Fourcault process, method of making, requirements for, A (12) 586.
Decolorizing materials for glass, 3 groups; use, A (7) 268.
Decorating department, accounting methods for finding costs in ceramic, A (11) 492.
Decoration of ceramic products A (11) 493.
of pottery, combining flowers and pottery for table decoration, A (7) 253.
production of mother-of-pearl effects on glass and artificial pearls, A (4) 128.
university lectureships in, at chief Brit. universities, A (11) 494.
Decorative painting on concrete, A (8) 319.
Definitions, standard, of terms relating to gypsum industry, A (4) 157.
Deflocculation of feldspars and flints with electrolytes, A (6) 228.
Deformation of ceramic masses on drying, A (1) 42.
of glass ware due to unequal cooling during manufacture, A (6) 216.
Delaware river bridge between Philadelphia and Camden, polychrome tile medallions, A (8) 318.
Density of concrete and water-cement ratio, A (6) 206.
Deposits, surface, in regenerators, shown in microscopic study of highly aluminous brick, A (4) 147.
Design, art, of glass ware, A (6) 249.
and color, application to useful things new business tool, A (11) 494.
good, advantage of, in table ware, A (5) 198.
Method of Creative, B (7) 257.
modern, suitable to modern tastes, A (12) 554.
personal experiences and national life as subject for, A (1) 3
and service of tank blocks, A (6) 249.
Designers, training, A (2) 49.
Designing for industry, advantages and disadvantages of machine, A (2) 49.
Determination, direct, of distribution curves of particle size in suspensions, A (6) 246.
Detroit Meeting of the AMERICAN CERAMIC SOCIETY, abstracts of papers presented before Glass, Terra Cotta, Heavy Clay Products, Enamel and Whiteware Divisions, A (5) 195, 197, 198, 199.
-Michigan Stove Co., description of plant of, A (5) 195.
Vapor Stove Co., description of plant of, A (5) 195.
Device for coating articles with glass, enamel, quartz, or metals, blow-pipe projection, P (5) 169.
Devitrification of glass, constitution of glasses determined, A (2) 52.
judging quality of flint glasses by method of, A (6) 218.
spherulitic, maps limiting surfaces for various temperature regions of technical glass masses, A (12) 576.
Diamine Sky Blue, effect of on growth of potassium alum crystals, adsorption at crystal-solution interfaces, A (11) 539.
Diaspor and bauxite, studies on properties of, A (5) 181.
-clay refractories, properties of, A (10) 447.
clays, shrinkage of, effect of particle size, time, and temperature upon shrinkage, A (1) 21.
and cyanite refractories, effect of cyanite on shrinkage of diaspor, diaspor-clay and cyanite-clay refractories investigated, physical properties studied, A (11) 522.
heat of decomposition of, at about 500°, A (5) 180.
specific heat of, at 100–400°, A (5) 180.
Diatomaceous earth in Brit. Columbia, A (11) 546, A (12) 614.
casting, slop molding, and casting bodies, A (1) 25.
its uses, A (11) 546.
Diatomite, concrete improved by use of, A (6) 210.
Dicalium silicate, research on the hydration of tricalcium and, A (5) 166.
Dielectric constants of various ceramic bodies, A (2) 76.
of 11 commercial glasses, A (7) 278.
Dielectric Theory and Insulation Lectures on, B (12) 623.
Dielectrics, behavior of, in high tension fields, A (9) 392.
Dies, effect of various auger tips, collective spacers, in extrusion machines, A (11) 536.
Diffusion of aqueous sodium silicate solutions across semipermeable membranes, A (10) 476.
in solid solution, A (6) 246.
Dilutometer, combination with parallel tubes, one of tubes sealed with liquid of known viscosity therein, P (9) 395.
Dinnerware branch of ceramic industry, need for research and education in, A (3) 120.
industry, economic and technical problems, A (7) 291.
shapes, Pittsburgh exhibition brings out new lines in colored glass ware, A (4) 127.
Discoloration of clays during firing, effect of presence of sulphur dioxide and water vapor, A (9) 396.
Disintegration of glasses by atmospheric agents, an elementary test of, A (11) 506.
Dispersion of light by glasses and measurement, A (6) 216.
of metals by mechanical and thermal means and by electric evaporation, A (10) 475.
Dispersoid analyses, Wiegner sedimentation apparatus, A (10) 472.
Dissociation pressure of sodium carbonate in presence of Fe_2O_3, A (10) 470.
Distribution curves of particle size in suspensions, direct determination of, A (6) 246.
Dolomite brick, manufacture of, requirements of, A (7) 289.
refractory used in hearths, A (5) 177.
Dolomites, composition of 15, A (5) 181.
Dolomitic lime plastic, process for making, A (1) 6.
Double refraction, artificial, caused by pressure on glass cylinder, A (1) 11.
Double salts in isomorphous series $MgSO_4 \cdot 7H_2O$–$ZnSO_4 \cdot 7H_2O$ and remarks on solid compounds in general, A (9) 405.
Draft comparison of cement and clay gas flues, A (5) 174.
regulator, automatic, A (5) 185.
Drier, calculations for a hot-air, A (3) 119.
combination of horizontally arranged cylindrical rotary, and heating chamber, P (4) 154.
considerations, some, A (6) 232.
kiln, series of longitudinally extending and parallel passages, means for moving ware horizontally and longitudinally, P (2) 73.
rotary, including outer and inner shells, inner shell with plurality of internal and external spiral corrugations, both shells forming plurality of spiral passages for flow of heating fluid, P (12) 599.
Driers for clay products, notes on; various types of driers discussed and compared, A (3) 110.
heat recovery and, for brick plants, A (11) 518.
methods of drying refractories, molds and cores, factors determining efficiency of driers, A (9) 393.
redesigned, efficiency increased, A (1) 31.
Dry grinding clay to 80-mesh, 2 installations for grinding terra cotta clay, advantages, and use of air separation, A (11) 532.
Dry pressing, status of, A (6) 249.
Drying Apparatus, B (12) 596.
of ceramic ware, mechanism of drying studied, A (1) 42.
cracks in, prevention of formation of, A (10) 443.
equipment in ceramic industry, importance of control of temperature, humidity, and ventilation, A (10) 455.

and firing of clays, report of investigation at Bureau of Standards, A (9) 413.
and firing silica brick, A (5) 182.
and grinding machine for clay and other plastic materials, P (3) 111.
humidity, advantages of, A (1) 18.
investigation, National Brick Mfgrs. Assn., progress report on, A (4) 145.
machines for industrial purposes, description of Turblex and Turbo-Simplex machines, A (2) 70.
material, method of, P (12) 628.
operations, air moisture in, A (5) 191.
practice, methods used with different types of clays described, A (7) 284.
problems of terra cotta, P (8) 349.
process of, tank blocks, P (6) 227.
properties of clays, A (7) 283.
of refractories, molds, and cores; methods of; problems involved in obtaining drying schedules, A (6) 232.
theory of, A (5) 196.
time, advantages of short and long drying time for ceramic ware, A (10) 460.
Uzallete system of, A (10) 459.
wall plaster, rate of, A (5) 165.
Durability of soda-lime-magnesia glasses, A (7) 273.
Durox glass house refractories, A (6) 249.
Dust-collecting installation at Ford Motor Co. Cement Plant, A (7) 297.
collection and recovery of, by mechanical means, A (9) 393.
-extracting unit, P (8) 355.
Dyes, effect of on growth of potassium alum crystals, adsorption at crystal-solution interfaces, A (11) 539.
Dyrssen recuperator for industrial furnaces described and compared with other types of recuperators, A (12) 604.

Earth, the Age of the, B (7) 302.
Earthen ware, method of coloring, P (11) 495.
microstructure of, A (9) 387.
microstructure of, study of development of mullite crystals at the contact of body and glaze; effect of heat treatment on size of these crystals, A (5) 184.
photomicrographs of glaze-body contact, A (7) 291.
works, casting in, A (10) 484.
wrong methods in manufacture of; suggestions for improvement and reduction in costs in production, A (12) 592.
Eckert hollow brick wall, described, A (10) 443.
Economics of labor-saving equipment, formulas for computing, A (5) 199.
Edelweiss pegmatites, properties, chemical analysis, and rational composition, A (12) 612.
Edison Portland Cement Co. plant, recent improvements in, A (5) 166.
Education, ceramic art, suggestions on, A (1) 4.
engineering, the trend of, A (9) 412.
Educational, development of course for training ceramic artists, A (7) 253.
Efficiency, effect of direct heating surface on, A (5) 196.
thermal, of ceramic kilns calculated, heat-balance study of Hoffman continuous coal-fired kiln, A (12) 601.
Efflorescence of bricks and walls, causes of, and methods of avoiding, A (11) 516.
and capillary fissures in cement mortars, A (6) 222.
and scumming, causes and prevention of, A (2) 61.
Egyptian Materials, Ancient, B (1) 5.
materials, problems in connection with, A (3) 93.
Elasticity of chemical stoneware bodies, A (9) 400.
and plasticity, terms defined, A (9) 401.
and transverse strength of clays at high temperatures, A (1) 22.
and transverse strength of sagger clays, at elevated temperatures, A (7) 285.
Electric furnace, calimite, for burning limestone and gypsum, A (2) 49.
consisting of resistor material and inner lining of carbonaceous material, P (10) 464.
for firing porcelain and other ceramic products, A (5) 186.
in iron and steel industry, types of refractories used, A (3) 104.
laboratory, for temperatures up to 1400°C, A (10) 461.
Electric insulators, method of manufacture, A (10) 453.
kiln, Harper, for porcelain up to 1500°C, A (1) 32.
kilns at the Gustavsberg works, A (10) 460.
lamp bulbs, data on, composition of, and coefficient of expansion of, English crystal, Rhenish crystal, wartime bulb glass, A (8) 333.
resistances for use in multiple valves, P (12) 611.
trucks for use around ceramic plants, A (8) 353.
Electrical Annealing Furnace, Experiments with, B (10) 436.
conductivity of clay slips, A (8) 350.
conductivity and hydrogen-ion concentration of clay slips, A (9) 401.
heating body for high temperatures especially for ceramic metallurgical processes and chemical processes, P (10) 464.
Insulating Materials, Properties of, in Graphical Form, B (9) 393.
insulation, glass for, composition of, A (2) 53.
insulators, fused quartz, deterioration of, A (2) 56.
Electrical porcelain, A.S.T.M. tentative methods of testing, A (1) 29.
data on physical properties of, A (2) 76.
industry, economic and technical problems confronting, A (7) 291.
knowledge of, contribution to, requirements, felted network of mullite crystals embedded in homogeneous glassy groundmass is desirable, structure; optical methods; chemical methods of testing, A (1) 30.
selection of, use of American clays in body; photomicrographs of body and glaze contact; Albany slip as indicator, A (1) 30.
Electrical resistivity of various ceramic bodies, A (2) 76.
Electricity, enamelers can save with, A (6) 213.
Electrochemistry, recent advances in, A (5) 179.
Electrolytes on clay slips, effect of various sodium silicates, A (6) 228.
fused, historical sketch, A (10) 475.
Electrometer, a new capillary, A (6) 247.
Electrometric control methods in industry, A (9) 393.
study of precipitation of silicates, A (9) 406.
Electromotive properties of glasses, A (1) 11.
series of metals in ceramics, effect of, A (5) 165.
Electroosmosis and application to purification of clays and kaolins, A (1) 35.
Elevators and conveyers, motor drives for, A (11) 536.
Elutriation apparatus, improved type, for use in plant control work, A (7) 297.
description of system known as "kinetic elutriation" for continuously classifying fine materials, A (2) 70.
or hydraulic classification of pigments, pottery slips, fullers' earth, abrasives, or other materials, apparatus for, P (4) 154.
Elutriator, Weigner, practical application, A (10) 455.
Emery wheel, porous, process of manufacturing, P (11) 490.
Emley plasticimeter, base plate for, description of method of measuring plasticity of lime, A (4) 132.
Enamel, acid-resisting, special oxide for, Meltoxyn, A (8) 327.
agreement of ground coat and, A (6) 212.
antimony white, containing not more than 8% Sb_2O_3 and 7% Al_2O_3, A (12) 569.
apparatus that improves quality of, A (10) 453.
batches, 12 commercial, A (4) 133.
colors, technique of painting with composition of fluxes, A (4) 133.

defects in, due to cast iron, condition of; carbon cause of blistering and pinholing, A (2) 50.
Division of the AMERICAN CERAMIC SOCIETY papers presented at Detroit meeting, A (5) 197.
equipment that has improved our, A (5) 198.
frit, note on the solubility of, in mill water, A (7) 264.
frits, control testing of borax and soda ash stocks used in smelting of, A (7) 265.
introduction to fluorine question in, A (8) 327.
microscopic investigation of opacity phenomena in, A (7) 265.
furnace, description of Beemack continuous drying and firing, A (4) 133.
furnace and smelting developments, A (3) 95.
furnaces, comparison of gas- and coal-fired sheet iron, operating cost data, A (1) 32.
graining porcelain, direct method of mechanically, A (8) 327.
industry in Canada, electric furnace in, A (5) 198.
industry, necessity of operating standards and procedure control in, A (7) 265.
kitchen equipment, modern trend in, A (4) 133.
kitchenware plant; routing production through, A (9) 412.
for permanence; washers adopt, A (11) 546.
phosphorescent luminous, method of preparing, P (10) 481.
and pottery industry, fuel oil in, A (6) 235.
resistance of, to attack by mineral acids, A (9) 373.
suspension with or without clay, effect of various electrolytes added to, A (5) 198, A (7) 264.
symposium, effect of manganese dioxide on physical properties of ground coat enamels; theory of ground coat adherence; control in making and firing ground coat enamels, A (7) 265.
Enameled electric resistance body, method of manufacturing, P (11) 505.
sheet-iron ware without ground coat, method of making, P (11) 505.
ware, improvement on pattern paper for, P (11) 496.
Enamelers can save with electricity, A (6) 213.
coal, low-priced fuel for, A (6) 212.
gas, fuel for, A (6) 213.
Training Course, Outline of Practical and Theoretical Study of Art of Porcelain Enameling, B (4) 134.
Enameling aluminum or magnesium or their alloys with silicates, P (7) 266.
brass or like metal, P (7) 266.
business, the economic trend of the, A (5) 198.
of cast and sheet metal, by dry method, P (5) 169.
furnace, gas-fired, comparative results of intermittent, semimuffle, and full muffle types, A (1) 8.
furnace, an intermittent-fired, A (7) 266.
furnaces, American electric enameling furnace, A (10) 428.
furnaces, application of fuels in, A (6) 212.
industry today, condition of, A (9) 373.
metal articles, to produce a surface to which vitreous enamels will adhere on brass, P (2) 52.
metal articles treated with current of air while portion to be enameled is heated to desired temperature, P (7) 266.
plant, description of Malleable Iron Range Co.; blowers cut fuel 25%, A (4) 133.
plant at Chattanooga, Tenn., description of, A (5) 169.
plants, Detroit's modern porcelain, A (4) 133, A (5) 169.
Enamels, aging of, some observations on, A (7) 264.
antimony as constitutent of; use of Sb_2O_4 and $NaSbO_3$ as opacifiers, impurities in, toxicity of, A (2) 50
antimony oxide in, the amounts and effects of, which go into solution, A (12) 568.
application of inhibitors in pickling operations, effect of concentration of acid and temperature, advantages, A (10) 428.
burning rack for, P (2) 51.
effect of mill practice on working properties and finish of, A (5) 198.
first-coat, for sheet iron, light colored, opacifying agents studied, A (9) 373.
flotation of, factors affecting consistency of enamel slips, A (3) 95.
fluoride ingredients of, behavior of, A (9) 374.
on glass as decoration over lithochrome negative made on tissue paper with heat resistant colors, A (12) 569.
for glass painting by mixing customary coloring oxides with white enamels, A (12) 574.
ground coat, effects of composition on properties of, for sheet steel, A (5) 168.
ground coat, effects of varying soda and boric oxides in, A (5) 168.
Enamels, leadless, for cast iron, the production of, A (12) 567.
formed with barium or strontium content, P (11) 505.
2 coat process, formulas given, P (1) 10.
use of sodium antimonate as opacifying agent in A (12) 567.
Enamels, light-colored first coat, for sheet iron to eliminate the necessity of 1st dark coat, A (11) 505.
Limoges, fundamental condition of the creation of, A (12) 568.
Limoges, masters of production of many different, A (12) 568.
Medieval, B (11) 505.
oxides of metals not ordinarily used as opacifying agents rendered suitable for this purpose by converting them into gel in colloidal mill, P (3) 96.
principal observations to be noted in cooling of, A (12) 568.
for refrigerators, manufacture described, A (10) 428.
sheet-steel cooking ware, white, economically suitable for use in China, A (5) 168.
special acid-resisting, high silica and alumina, boric acid, and zinc oxide are conducive to good acid-resisting enamels, A (7) 266.
use of opacifiers containing antimony; Leukonin and Timonox compared, effect of organic acids on, A (8) 327.
without tin oxide, white, formulas, A (8) 322.
vitreous, effect of mill practice on working properties and finish of, A (8) 327.
study of ceramic colors and their use in, methods of applying colored enamels, effect of enamel composition on color, batch formulas given, A (11) 503.
use of muffle furnace in testing of, A (6) 212.
Engineering education, the trend of, A (9) 412.
Engobe ware, technique of, A (5) 165.
Equilibrium between molten metals and salts, A (10) 479.
Equipment and supply exhibit, description of, at AMERICAN CERAMIC SOCIETY Meeting, 1927, A (5) 195.
European plants, glimpses into some, A (6) 250.
porcelain industries show variance in products, A (1) 29.
Evaporation, B (1) 32.
of water and salt solutions from surfaces of stone, brick, and mortar, A (12) 587.
Exhibit, permanent, at offices of AMERICAN CERAMIC SOCIETY, A (3) 91.
Expansion, on change in coefficient of, of substances in amorphous state, A (4) 140
of silica brick, investigation of, A (5) 179.
thermal, of solid bodies, new apparatus for determination of, produced by optical institution, C. P. Goerz, A (5) 190.
Experience, help or hindrance, A (10) 481.
Experiment stations, federal and state support of, A (4) 159.
Experiments, batch melting, with batch materials containing chemically combined water, A (6) 213.
Extrusion machine auger and die investigation at Bureau of Standards, A (7) 284.

workability of clays and shales studied at Bureau of Standards, A (1) 17.
Extrusion machines, effect of various auger tips, collective spacers, and dies, A (11) 536.

Facing or preservation of walls and other surfaces, method, by application of several coats, P (10) 444.
Factory costs, A (11) 545.
Factory design and equipment, A (5) 175.
for brick plant, A (8) 343.
general arrangement, A (6) 222.
screening and air separation, A (10) 442.
Factory management, pivot man and his relation to industry, A (2) 85.
processes, methods and machine design, wasteful of labor or power, A (7) 311.
requirements, trend of, A (11) 545.
Faience or Porcelain, distinction pointed out, A (2) 69.
ware, technique of, A (5) 165.
Famille Rose, The Book of, B (4) 128.
Feldspar, B (1) 42.
in Australia, A (6) 238.
effect of, on tone of colored enamels, A (11) 503.
and flint with acids and bases, behavior of, phenomena of flocculation, deflocculation, and absorption studied, A (6) 228.
and flint, behavior of, with acids and bases, A (5) 198.
grinding, description of plants found in Tenn. production of plants, analysis, A (1) 34.
interesting development of, A (4) 155.
investigation of, A (5) 184.
by Bureau of Standards, 2nd progress report, A (7) 291.
by Bureau of Standards; glaze fit, mechanical strength, and porosity of vitreous and semivitreous bodies, A (8) 350, A (9) 387.
by Bureau of Standards, thermal expansion on 2 series of semivitreous bodies fired to cone 8, effect of increasing potash and decreasing soda and vice versa, A (10) 452.
data on soda and potash by Bureau of Standards, A (12) 592.
method of purification, P (10) 481.
microphotgraphic study of free quartz in, A (3) 108.
from N. C., production, A (2) 74.
occurrence, and mining of, in S. D., A (7) 301.
occurrence of in S. Australia, A (12) 614.
potassium, thermoluminescence, apparatus used described, A (3) 119.
production in N. C., A (11) 533.
properties, geological mode of occurrence, uses with special reference to Norwegian feldspar industry, A (3) 115.
quantitative microscopic analysis of commercial, description of 2 methods investigated at Bureau of Standards, A (10) 468.
tests, notes on; fusion tests on, A (2) 68.
2 microscopic methods for analysis of, developed by Bureau of Standards, A (12) 592.
Feldspars, alkali, thermal expansion of, values given from 180–900°C, A (12) 621
Canadian, A (7) 301.
chemical study of, A (10) 478.
and flints, typical, particle size distribution of A (6) 228.
hydrothermal alteration of, A (10) 468.
microscopic researches on, A (7) 308.
potash-soda, composed of at least 2 end members each of which may be trimorphous, theory of polymorphism, A (3) 114.
potassium-sodium, diagram showing relation of n's to chemical composition of K–Na feldspars, A (7) 308.
study of characteristic properties of typical, A (4) 152.
Feldspathic materials of Pacific Northwest, A (7) 302.
of Pacific Northwest, materials suitable for white ware, terra cotta, glazes, physical, and chemical properties of, A (9) 399.
Ferric iron and ferrous iron, estimation of, A (10) 469.
Ferric oxide, determination of, in soda-lime glass, methods used at Bureau of Standards and those recommended for routine work, A (12) 615
-silica system, immiscibility in, A (4) 157.
Ferro-concrete style, A (9) 367.
Ferrous metallurgy and corrosion, A (6) 213.
Filter, Haldenwanger, described, A (9) 392.
-press cloths, care of, A (12) 595.
presses, advantages and disadvantages of various standard types, A (11) 535.
Filtering of clay bodies, continuous, method and apparatus described, A (3) 109.
crucibles for use in gravimetric analysis, A (9) 392.
Filtration equipment in today's industry, A (11) 546.
Fine grinding, details of research in, A (5) 199.
effect of, on an indurated clay, A (7) 311.
researches on the theory, on diameters of irregularly-shaped crushed sand particles, A (9) 401.
researches on the variation in the specific gravity of quartz sand on long grinding, A (10) 483.
of rock products, air-separation methods used, A (8) 353.
Fineness of grain of materials, new apparatus for measuring, A (3) 111.
and structure of pulverized coal, A (6) 234.
Fining of pure and aluminous alkali-lime-silicate glasses with saltcake or arsenic, A (1) 38.
Finzer Brothers Brick Co., plant, description of, A (5) 175.
Fire brick, clay, specification proposed for, for malleable furnaces with removable bungs and for annealing ovens, A (5) 177.
clay tentative specifications for, for malleable furnaces with removable bungs and for annealing ovens, (American Refractories Institute), A (1) 23.
classification of, A (5) 177.
corrosion of, properties desirable to aid in resistance to corrosion, A (8) 345.
crushed, refractories made of, and cement, A (12) 588.
in glass furnace, an example of decomposition of, A (12) 569.
for glass works, properties desired, practice in England, A (8) 344.
industry of Stourbridge, A (10) 450.
porosity of, composition of various, methods and substances used, A (8) 348.
problems, A (9) 382.
producer gas for firing, in tunnel kiln, A (5) 199, A (10) 458.
spalling and loss compressive strength when fired to 1250 and 1350°C, fireclay brick from Pacific Northwest studied, A (11) 522.
specifications, American Refractories Institute, A (1) 24.
testing and choosing, A (1) 24.
tunnel kilns for firing, A (1) 33.
what is good; properties desired, A (1) 24.
Fire clay, data on physical properties of, A (2) 76.
interval specific heats of, A (12) 615.
plastic, U. S. Govt. Master Specifications for, A (1) 21.
used by steelworks of S. Wales, to manufacture nozzles, sleeves, tuyères, A (7) 301.
Fire clays, Pennsylvanian, the origin of bedded, A (10) 444.
tentative definitions of terms relating to various types of, A (11) 527.
with varying alumina content, melting point of, effect of slag in blast-furnace gases on composition of slag, types of refractories in various zones, A (2) 65.
Fireclay bodies, data on physical properties of A (2) 76.
brick, A (6) 225.
effect of steam on transverse strength of, A (5) 195.
thermal expansion of, over interval 25–1400°C, A (10) 449.

transverse strength of, effect of steam on, A (5) 199.
deposit near Hillbank on Brit. Columbia coast, A (11) 528.
refractories, A (6) 227.
refractories, shrinkage, causes A (9) 386.
Fire-finishing glass articles, method and apparatus for, P (7) 281.
Fire-proof mortar, prepared, P (12) 628.
Fire-resistant fibrous material and method of producing, P (12) 628.
material, liquid mixture for use in treating combustible fibrous material to render fire resistant, P (12) 628.
Fire-wall construction, hollow, P (12) 587.
Fireproofing fibrous materials, P (3) 122.
specifications proposed by steel makers, A (2) 61.
Fire-receiving wall, P (6) 222.
Fire tests, formulating standard building material, A (1) 19.
specifications for, of building construction and materials, A (1) 18.
Fire Underwriters Laboratories, work of, on rock products, A (5) 175.
Firing brick with boiler-furnace stoker, A (3) 113.
Firing ceramic kilns, recent work on, A (10) 463.
and other products, art of, P (5) 187.
products, new method, A (9) 396.
products, process of, method of placing fire brick in kiln, P (10) 464.
ware in electrically heated tunnel kiln, A (9) 398.
Firing and drying of clays, report of investigation at Bureau of Standards, A (9) 413.
"hogged fuel" in continuous chamber brick kiln, A (9) 398.
hollow tile in a scove kiln, A (10) 459.
new method of, A (2) 72.
porcelain, reduction of cost of, various improved methods described, A (9) 398.
refractories, problems in, firing efficiency, 7 plants tested, A (9) 395.
of sewer pipe, A (11) 518.
silica brick, drying and, A (5) 182.
system, high pressure air-oil, profitable, A (11) 517.
System, Producer Gas, on the Choice of, B (5) 187.
technique and ceramics, A (10) 462.
Fischer process for manufacture of Synthol, A (3) 112.
Fitch recuperator for industrial furnaces described and compared with other types of recuperators, A (12) 604.
Flaking of refractory bricks, notes on, A (6) 225.
Flame temperature of producer gas using preheated air and gas, A (10) 461.
Flames, luminous and nonluminous, in industrial gas furnaces, A (7) 299.
luminous, radiation from, methods of studying described, A (10) 460.
Flashing brick in tunnel kiln, method, colors obtained, use of oil, A (2) 61.
and other unique developments in connection with modern tunnel kiln face brick plant, A (5) 195, A (8) 342.
Flasks, vacuum, method of production of, P (6) 221.
Flint, Frechener, production of, A (10) 468.
Flints, typical feldspars and, particle size distribution of, A (6) 228.
Flocculation of clay, anomalous, A (3) 116, A (10) 480.
of feldspars and flints with electrolytes, A (6) 228.
Floor construction, nonslip, P (8) 317.
Floor tile industry, economic and technical problems confronting, A (7) 291.
industry, growth of during last 50 years, A (7) 294.
Flocculating reagents, use of, for recovery of fine mica, A (9) 393.
Flowability of clay slips, effect of various sodium silicates on, effect of p_H on, A (6) 228.
Flue linings, A (5) 195.
various types investigated, properties desired, recommendations made, A (11) 516.
Fluidity, theory of, A (9) 405.
Fluorides, estimation of, methods summarized; new colorimetric method described, A (7) 306.
Fluorine, determination of in mixtures of fluorite, sand, and silicates, A (3) 117.
Fluorspar, analysis of, A (9) 407.
in cement manufacture, use of, A (11) 499.
effect of, on tone of colored enamels, A (11) 503.
mining and markets, A (7) 301.
mining, milling, and utilization, A (12) 615.
new method for complete analysis of, A (5) 192.
occurrence, physical and chemical properties, uses of, A (4) 155.
purification by heating with alkali hydroxide under pressure to remove silicon, P (11) 544.
uses of, physical and chemical properties of, A (1) 36.
valuation of, occurrences of, A (8) 359.
Flux for glass colors, process of preparing, P (11) 515.
Ford River Rouge Plant, description of, A (5) 195.
Forming apparatus of die member, a 2nd die member, a lever pivoted to 2nd die member, and a 3rd die member carried by lever, P (12) 596.
Forming and delivering charges of molten glass, means for, P (6) 220.
Fourcault window-glass machine, service requirements for special clay shapes for, A (12) 586.
Franco-Belgian Assn. for Testing Materials, studies on the duration of set and re-mixing of concrete; method of determining soluble silica in cements; influence of shape of specimen on absolute value of resistance to compression of mortars, A (1) 5.
Franco-German Trade Agreement, A (11) 546.
Frechener flint, production of, A (10) 468.
Freeing creative power of individual through making of pottery, A (6) 204.
French, German, and English sieve numbers, comparison of, A (6) 231.
Industrial Chemistry, 6th Congress of, A (1) 37.
Frinkite, new refractory known as, properties of, A (6) 216.
Frit furnace, modern; rotary smelting furnace of 1200-pound capacity heated with oil, A (2) 68.
Frosted lamp, internal, method of manufacture, reagents used, A (8) 334.
Fuel in clay industry, A (6) 234.
coal is low priced, for enamelers, A (6) 212.
colloidal, the briqueting of, A (7) 312.
Combustion, B (10) 463.
consumption, the influence of preheating hot gas and secondary air on the temperature of combustion, A (12) 605.
economy in glass works practice, A (10) 433.
for enamelers, gas as a, A (6) 213.
in furnaces, method of and apparatus for controlling combustion of, P (12) 608.
gaseous, use of, in England, A (2) 72.
generator gas as a, for high-power boilers, A (7) 312.
industrial, coal is most important, A (6) 235.
Institute of, formation of, A (8) 364.
manufactured city gas as an industrial, A (10) 458.
method of carbonizing, P (10) 465.
in 1926, A (6) 236.
oil in Brit. pottery industry, advantages and difficulties of firing with, A (2) 72.
oil in enamel and pottery industry, A (6) 235.
process of distilling and gasifying solid carbonaceous, P (10) 465.
resources, American, A (12) 601.
successful application of powdered as tunnel kiln, firing hard common brick, A (6) 236.
sulphur in, and its determination, A (6) 236.
synthetic, review of patent literature of European countries on catalyzed interaction of CO and H_2, A (2) 71.
technology, notes on recent developments in, low temperature carbonization of coal, A (8) 357.
Fuel-testing apparatus, P (12) 607.
Fuels, application, of, in enameling furnaces, A (6) 212.
ceramic, use care in selecting, A (6) 212.

gaseous, for furnace heating, A (10) 459.
gaseous, increasing in industry, A (6) 235.
impending changes in our uses of, A (12) 601.
Introduction to Chemical Technology of, B (8) 357.
liquid, afford steady temperatures, A (6) 235.
production of, A (9) 398.
production of, description of the Fischer process for manufacture of Synthol, A (3) 112.
pulverized, theoretical temperature of combustion with varying proportions of air, A (10) 461.
solid, relative ignition temperature of, A (7) 299.
solid, utilization of, in small automatic fires up to fusion point of ash, A (10) 461.
Furnace arch constructed of plastic refractory materials, having embedded therein transversely disposed metal tubes, P (12) 608.
Furnace, annealing, for sheet glass, P (12) 584.
automatic, newer measurements and observations of, for burning cement, A (12) 565.
bricks, shapes of, P (10) 451.
in combination with movable hearth and means for jarring hearth, P (10) 457.
continuous electrode, highly efficient, 10,000 single-phase furnace, A (7) 296.
controller for high temperatures, description, A (7) 296.
developments, recent European, enameling and muffle furnaces described, A (3) 104.
insulation, selection of proper, A (6) 236.
iron blast, occurrence and significance of alkali cyanides in, A (6) 225.
kerosene fired enameling, A (5) 168.
lining by forming pattern with shape of channel formed, tamping refractory material about pattern, causing a portion of pattern to be destroyed, P (12) 590.
linings, new preventive against destruction of, zircailite, A (5) 182.
measurement of high temperatures in carbon resistance, A (11) 541.
and method of operating, P (10) 464.
modern lime calcining, description of refractories used at Nitrogen Works at Chorzow, Germany, A (6) 206.
muffle; outer layer of heat-insulating material and removable lining of a series of separate plates of refractory material, P (12) 608.
Furnace, electric, calcination of limestone in, P (6) 212.
combination of heater comprising a container, closed except at bottom, means which form a closure and a seat for container, P (12) 609.
combination of member of overhung channel section, and elongated hanger block interfitting with member and extending away from face thereof, constituting sole support for resistor member, P (6) 232.
combination with outer casing, a resistor chamber confined to upper portion, resistor extending through chamber and radiating heat downward, P (12) 608.
combination with wall having opening therein; of resistor-unit-supporting member, P (6) 233.
combination with wall of refractory material and refractory resistor-supporting member located in wall, P (6) 232.
for firing porcelain and other ceramic products, A (5) 186.
with furnace wall, resistor-supporting member supported by wall, and resistor supported by member, P (6) 232.
with grooves in floor and provided with refractory pipes holding resistant wires along inside walls, P (11) 537.
including refractory base, hearth spaced above base, and resistor mounted between hearth and base, P (6) 233.
-induction; heat refractory walls providing open-loop reservoir for the charge and a closed-loop heating channel, P (12) 609.
for melting and heating glass, heat produced by resistance elements made of materials not oxidized or attacked by glass at 1400°, P (5) 174.
a member of channel section, hanger block for supporting resistor member extending into member of channel section and held in proper operative position therein by resistor, P (6) 232.
refractory crucible, carbon electrode terminating within wall of crucible and metallic terminal member, P (12) 609.
resistance muffle, P (5) 187.
used in making stained glass A (11) 508.
Furnace, electrical resistance; a heavy resistor, member comprising a plurality of end-connected parallel straight convolutions and hook members for supporting resistor, P (10) 457.
Furnace, glass, of continuous type with melting and working chambers separated by bridge wall of less height than furnace interior; partition extending horizontally over working chamber, P (11) 510.
example of decomposition of fire brick in, A (12) 569.
with means for restricting flow of upper glass strata through tank, comprising internally water-cooled metallic partition member, P (11) 512.
for melting and refining glass, etc.; dividing wall formed of plurality of renewable blocks, whereby molten material upon one side of furnace may pass to other side, P (10) 437.
Furnace grate, stepped, combination of fixed and movable grate bars arranged in groups, P (12) 609.
Furnace heating unit, removable, in combination with open-bottom refractory furnace, P (10) 457.
Hoffman ring, changes in design of, A (10) 460.
muffle type; metals annealed in inert atmosphere, the charge inserted and withdrawn by mechanical device vertically movable within chamber in alignment with heating chamber, P (12) 585.
muffle, use of, in testing of vitreous enamels, A (6) 212.
new, lining, A (6) 225.
operation, effect of height of stack on, A (7) 298.
platinum-wound resistance, for use in cone-deformation studies, A (7) 296.
principle of regenerative furnace, A (12) 603.
resistor, electric of metal helically wound round 2 refractory bars and supported in notched portions of one of the bars, P (12) 599.
rotary, for firing cement, etc., with cooling chamber at lower end, P (5) 168.
Siemens-Martin, experiments on determination of radiation in, apparatus, and method described, A (12) 606.
tank, for opalescent glass, P (11) 515.
wall comprising outer and inner wall, P (11) 531.
walls, determination of heat losses through, A (5) 186.
Furnaces, baffle wall for, P (11) 531.
brass-melting, brick for, types of electric, types of brick to use with each, A (8) 345.
cupolas, or ladles, lining, the Torkret process for, in iron and steel works, A (6) 226
efficiency of, heat-capacity-temperature diagram of combustion, A (10) 461.
electric, advantages of, for enameling, A (6) 213.
electric, for glass, with solid electrodes completely submerged in bath of molten glass, P (5) 174.
enameling, American electric enameling furnace, described and advantages given, thermal efficiency, temperature control, A (10) 428.
application of fuels in, A (6) 212.
types compared, A (1) 8.
further developments in recuperative glass, A (6) 216.
gas-fired, combustion temperatures and efficient heating in, A (7) 313.
gas-fired enameling, for cast-iron; comparison of with electrically heated glass enamel ovens, A (2) 50.

Furnaces, glass, corner and supplementary firing in; description of 3 methods of supplementary firing, A (12) 604.
regenerators for, A (12) 574.
some further developments in recuperative, A (10) 432.
tank, regeneration in, A (12) 503.
tank, relation between size, capacity, and heat consumption of, with regenerative firing, A (7) 278.
Furnaces, high-frequency, concerning theory and construction of induction furnaces; A (12) 605.
high-frequency induction, described, A (3) 113.
high temperature, tungsten-wound resistance furnace described for use to 1650°C, A (12) 606.
hydraulic theory of flow of gas in, fundamentals of gaseous flow as outlined in theories of Groum-Grjimailo, A (12) 605.
Furnaces, industrial, combustion problems met in, A (12) 602.
elements and principles of, A (10) 484.
gas, luminous and nonluminous flames in, A (7) 299.
recuperators for; description of Amco, Calco, Fitch, Mantle, Morgan, Dyrssen recuperators, A (12) 604.
Furnaces, observations on heat transfer in, A (4) 137.
open-hearth, checker arrangement for increasing capacity of, A (9) 387.
powdered coal, temperatures in, having extended radiant heat-absorbing surfaces, A (6) 223.
refractory linings for, A (12) 589.
regenerative, elimination of reversing valves in, P (12) 612.
rotary, for melting or refining metals, P (12) 610.
in sand seals for use between fixed and moving parts of furnaces, P (12) 611.
smelting, relining, A (6) 225.
for trial melts in glass works, diagrams, A (8) 332.
types classified, A (4) 149.
Fused electrolytes, historical sketch, A (10) 475.
Fused quartz, data on physical properties of, A (2) 76.
Fusibility of coal ash to formation of clinkers, relation of, A (6) 235.

Garnet grains used in manufacture of grinding wheels, A (12) 554.
Garnet group, minerals comprising hardness of the best garnets, A (12) 553.
X-ray study of, A (11) 540.
Garnet industry, growth in U. S. and Europe, A (12) 554.
Garnets, Indian, composition of, A (7) 253.
Gas-analysis apparatus, catalytic gas-analysis device, P (12) 596.
Gas-analyzing apparatus, continuously operating, P (12) 624.
Gas, city, successfully firing brick, A (5) 185.
city, valuable and important, A (6) 235.
flow of, hydraulic of, in furnaces; fundamentals of gaseous flow as outlined in theories of Groum-Grjimailo, A (12) 605.
flue, heat loss in, A (12) 602.
fuel for enamelers, A (6) 213.
producer and lime kiln combined, A (7) 259.
producers, mechanical stokers for, A (7) 299.
produces better results at less cost, comparison of gas- and coal-fired sheet iron, enamel furnaces, A (1) 32.
regulators, Chowning, and value to glass industry, A (12) 595.
washing bottle, a new spiral, A (6) 248.
Gases, all-glass pump for circulating, A (8) 332.
dissolved in molten metals, new method for determination of, A (9) 402.
forced convective cooling of wires in, A (6) 243.
ignition of, A (2) 72.
Gases and liquids, convection of heat in, A (6) 243.
viscous, natural convective cooling in, A (6) 244.
viscous, theory of forced convective cooling in, A (6) 245.
Gases, molal specific heat of CO_2, SO_2, H_2O, over temperature range 0–200°C, A (12) 601.
natural convective cooling of wires in, A (6) 243.
occluded in glass, A (7) 273.
thermal conductivity of, H_2 and air studied, A (12) 620.
Gaseous fuels are increasing in industry, A (6) 235.
Gas-works oven, directions for designing, A (7) 288.
Gelatin, effect of on growth of potassium alum crystals, adsorption at crystal-solution interfaces, A (11) 539.
Geological development of N. J. from dawn of geologic time to present, A (11) 538.
Geology and mineral resources of Carbondale quadrangle, A (6) 237.
of Equality-Shawneetown area, A (6) 237.
of Dixon quadrangle in Ill., A (11) 538.
of Joliet quadrangle, A (6) 238.
Geology, Physico-chemical, B (5) 189.
Geophysical Union, Trans. of the Amer., B (7) 302.
Geophysics, applied, methods of value in reducing drilling costs, methods of application, A (1) 35.
Gels, mechanics of adsorption and swelling of, A (7) 306.
Gems, method of making artificial, formulas given, P (10) 481.
General Secretary, report of, 1926–27, A (6) 248.
Generator gas as a fuel for high-power and high-pressure boilers, A (7) 312.
Georgia, clay and clay products in, A (5) 188.
mineral development of, A (5) 188.
German abrasive material industry condition of, A (1) 3.
artistic glass, A (7) 256.
cement industry, development of, A (8) 323.
Ceramics of the Present, B (10) 484.
Faience Culture, B (7) 278.
glass industry, condition in, reviewed, A (5) 169.
Society of Glass Tech. work of, list of various investigations by members, A (9) 410.
Germanium dioxide and germanium glasses, properties of, A (2) 55.
Germany, commercial relations of, and U.S., A (9) 412.
glass to withstand heat and acid, perfected in, A (6) 215.
increasing use of Carborundum as refractory material in, A (5) 181.
present position of glass industry in, A (4) 136.
Gilding of glass, processes and recipes, A (7) 256.
Glass, acid and heat resistant, for tube water gages which sustain cold water pressures up to 100 atmospheres, A (6) 215.
after-working of, errors in volumetric, apparatus, A (2) 52.
aging of, spectrophotometric measurements on 12 representative glasses, A (2) 56.
analysis, tentative standard method of, A (5) 195.
ancient and modern, discussion of Steuben glass, A (1) 14.
Glass, annealing of, A (10) 434; A (12) 571.
assumption that coefficient of expansion of glass is constant over annealing range; Twyman's law, A (4) 138.
factors, heat emissivity, thermal expansion, viscosity, homogeneity, forms and dimensions, A (2) 53.
factors; influence of existence of surface layer; methods, A (9) 375.
by passing hot plastic glass between heat-insulating devices as asbestos belts, conductivity of which lessens as glass passes along, P (12) 582.
preliminary heating at high temperature, rapidly reducing point within annealing range; continuously cooling, P (10) 440.
Glass, art and industry of, A (5) 164.
art, of Leerdam, types of furnaces, description of cutting, engraving, etching, sandblasting, crackling, painting, lustering, A (3) 91.
articles, method of manufacture, P (5) 173.
aspects of decomposition of, in hydrothermal tests, A (12) 570.

batches and methods used 2500 years ago, A (1) 13.
beads, hollow, internal waxing of, A (4) 128.
Glass-blower, art of, A (9) 367.
Glass-blower's patent pipe, pneumatic, introduction in glass industry, A (7) 268.
Glass, blue, used for welding; cuts out ultra-violet radiation, A (2) 54.
borosilicate, containing alkali metal nitrate and large percentage of silica, P (7) 279.
borosilicate crown, elimination of seeds from, A (12) 572.
bottle, jar, etc., method of forming design in color on, during manufacture, P (11) 494.
bottles, manufacture of, over 12 million annually, A (7) 272.
bottles, strain and hot water test for, A (1) 13.
bracelet with silky luster, process of manufacture, P (11) 496.
bubble, process of manufacture, P (11) 495.
as building material in reinforced concrete, A (7) 269.
calculation of physical properties of, influence of component oxides not additive except in new glasses, A (4) 134.
Calorex, properties of, A (3) 99.
cameos and buttons, production of, description of process of manufacture, A (8) 321.
capable of withstanding abrupt changes of temperature, mechanical shock, and chemical action, A (5) 172.
carboys, manufacture of, A (9) 377.
center, Bellaire as, A (4) 137.
chemical treatment of, etching, A (1) 12.
cobalt-blue, with cerium excludes actinic rays of light, A (1) 13.
color-change and luminescence in, a peculiar case of, described, A (7) 277.
colored, Christmas tree ornaments, production of, A (8) 320.
coloring, iron compounds as agents for, colored glass batches given, variety of colors obtainable A (4) 135.
colorless Crookes, containing cerium and didymium, P (9) 380.
Glass, composition for cleaning and polishing, P (12) 581.
free of silica, containing alumina, an oxide of 2nd group element, and not over 10% alkali, P (2) 57.
transparent henna-colored lead glass; batch formula, P (8) 338.
Glass constants, calculation of, in form of individual functions of oxides in given fundamental glasses, A (4) 140.
Constitution of, B (10) 436.
constitution of, new ideas on, A (6) 216.
constitution of, physical properties and heat treatment, molecular complexity, chemical combinations, and fine structure, A (6) 216.
Glass Containers Assn., report of meeting, May, 1927, A (7) 312.
report of 8th annual meeting of, A (8) 330.
report of meeting July 1927, A (10) 482; A (11) 545.
Glass containers, mechanical production of, furnace design, glass composition, devitrification, gas producers, feeding devices, automatic machines, annealing, A (2) 53.
containing germanium suitable for optical uses, P (3) 102.
controlling softening temperature of, P (4) 144.
Corning's new; transmits 85% of sunlights' ultra-violet content, A (1) 14.
crystal, French making, by old type blown methods, A (12) 570.
crystallization of, example of in collection of Institute Chimique at Nancy examined; composition given, A (10) 436.
decomposition, effect of moisture and gases on, A (2) 54.
decomposition of by water at high temperatures; effect of composition of glass on rate of decomposition, A (10) 428.
decolorization materials, 3 groups of, use of various types, A (7) 268.
decorated, acid proof, A (10) 435.
decoration, development of, A (8) 321.
Defects in, B (10) 485.
defects, observations, and investigations of, stony and devitrified, blistered and bubbly, decomposed and effloresced, A (3) 100.
development of; possibilities in, as working material; new applications of, A (8) 330.
developments, recent, discussed by G. W. Morey, A (8) 330.
Division of the AMERICAN CERAMIC SOCIETY papers presented at Detroit meeting, A (6) 195.
Division meetings, papers read in, A (5) 169.
drilling holes in, methods and apparatus cutting compound, A (8) 354.
ductility of, importance as working property of, A (10) 433.
Durax, 3817, composition, thermal expansion of, thermal resistance of, A (7) 274.
early ages, methods of manufacture, history of, A (3) 96.
economy in packing, efficiently, A (11) 506.
effect of oxidation and reduction on color produced in, by selenium, A (5) 171.
effect of thermal treatment on, as shown by precise viscometry, A (4) 137.
elastic, its origin and applications, A (8) 328.
for electric insulating purposes, suitable for parts of electric lamps, formula given, P (8) 341.
for electric insulation, formed from devitrified glass, P (8) 341.
for electric insulators, sodium-aluminum borosilicate, using aluminum sulphate as batch material to lower the melting point, P (4) 144.
electric lamp bulb, data on, composition of, and coefficient of expansion of, English crystal, Rhenish crystal, wartime bulb glass, A (8) 333.
electric melting of, A (5) 171.
electrical insulation, composition of German glass for, A (2) 53.
electrical insulation, formula, P (10) 440.
electrodes for use in measuring p_H of solutions, A (10) 471.
etching by hydrofluoric acid, A (5) 165.
etching plants, protection of workers in, A (8) 329.
European, B (4) 128.
expansion of, precisely measured, A (10) 433.
eye-protective, P (12) 579.
factories at Shanghai, A (1) 13.
factories, technical control of automatic production, A (6) 215.
Glass factory in days of Nebuchadnezzar described, A (5) 170.
improved, for quality ware, A (1) 12.
new German-Belgium, A (7) 269.
Tygart Valley Glass Co. starts at Washington, Pa., A (6) 215.
Glass, feeding molten, method of, P (8) 339.
field, German, powdered coal in, A (6) 236.
filaments and quartz filaments, silvering of, A (7) 269.
flint, show notes, A (4) 137.
flow of, in tanks, lines of, method of examination; effect of method of charging, A (10) 433.
as 4th state of matter, A (3) 119.
frosting of, by mixtures containing hydrofluoric acid and alkali fluorides A (7) 267.
frosting, by treating the inside surface of hollow glass articles by use of alkaline fluorides or other fluorine-containing substances, together with hydrochloric acid or soluble chloride, P (11) 494.
furnace regenerators, surface deposits formed in, nephelite, carnegieite, and corundum, A (1) 10.
Glass furnaces, corner and supplementary firing in, description of 3 methods of supplementary firing, A (12) 604.
regenerators and recuperators compared, A (8) 335.
some further developments in recuperative, A (6) 216, A (10) 432.

Glass, German artistic, A (7) 256.
gilding, method and solutions used, A (8) 320.
gilding, processes and recipes, A (7) 256.
glazing with plate, A (8) 329.
grinders, manufacture of, A (9) 377.
ground, determination of soluble alkali in, Mylius' method described, classification of glasses according to this method, A (7) 269.
heat-resisting, containing silica, boric oxide, an alkali oxide and colloidal aluminum oxide, P (6) 220.
heat-resisting, insensitive to abrupt temperature changes, containing at least 45% SiO_2, 2–15% B_2O_3, 4–30% MgO and CaO, 20–30% Al_2O_3 and not more than 8% alkali oxide, P (4) 144.
history of, A (2) 54.
Glass house refractories, Durox, A (6) 249.
Glass houses, Cumberland, A (6) 214.
Nottingham, history of glass manufacture during 18th century, A (3) 97.
of Stourbridge, notes on, A (10) 429.
Glass, improvement in making spherical, polygonal, or solid stained, P (11) 496.
Glass industry and Baltimore and Ohio R. R. Co., A (8) 328.
Belgian, prospers, A (5) 169.
in Belgium and Czechoslovakia, A (1) 12.
in Canada, condition of, A (3) 101.
Chowning gas regulators and value to, A (12) 595.
in Czechoslovakia, review of present conditions, A (11) 509.
Czechoslovakian, would be independent of Hohenbocka glass sands, A (7) 269.
development of German, mechanical production of glass; development of machines, A (4) 136.
development of, in Russia A (4) 136.
European, reaching a crisis, A (11) 506.
German, conditions in, reviewed, A (5) 170.
in Germany, present position of, A (4) 136.
heat in, rational utilization of, fuel consumption of various types of furnaces, design of gas producers, A (8) 333.
physics in, A (10) 435.
Pittsburgh and the, A (6) 215.
problems of, A (2) 55.
progress of, lecture by W. E. S. Turner, A (10) 434.
recent progress in the, A (6) 217, A (8) 328.
recent progress in, economic aspects of glass industry, data on production, A (7) 270.
in Rhineland, economic development of since antiquity, A (7) 271.
San Francisco a factor in, A (6) 215.
sheet and plate, progress of, A (7) 267, A (8) 328.
sodium sulphate in, advantages and disadvantages of use, A (4) 137.
window, large clay shapes for, A (6) 249.
work flow described, advantages of A (7) 270.
Glass industry's contribution to growth of Toledo, A (9) 377.
idoeosin test on powdered glass, A (9) 378.
Jena, A (5) 171.
Jena apparatus, use of, A (7) 310.
Jena Gerateglas 20, composition, thermal expansion of, thermal resistance of, A (7) 274.
jewlery, production of, A (8) 331.
laboratory flow meter all in, A (6) 247.
laminated, method of making, P (2) 60.
leaded, clear, stained, and colored, A (6) 205.
low-expansion, with high proportion (less than 70% silica) boric and sodium oxides in ratio of 85:15, P (6) 221.
machinery, ancient and modern, A (1) 13.
machinery, savings of A (7) 272.
machines, window, clay shapes for, service requirements of, for the Lubbers, Colburn and Fourcault machines, A (12) 586.
Glass making advanced at Ford's St. Paul plant, A (12) 571.
early, in various states, A (12) 570.
epochs in, A (3) 100.
history of in N. Y. and New England States, A (1) 14.
for motor cars, description of continuous process used by Henry Ford, A (9) 378.
notes on sands used in, A (5) 172.
100 years of, A (5) 171.
Glass manufacture, B (1) 44.
census of, 1925, A (9) 378.
displacement of labor by machinery in glass industry, A (7) 267.
flame-tinted glass for electric lamp bulbs, P (10) 441.
forming articles from tubular blanks, P (10) 441.
mixed batch pressed into briquets, P (10) 440.
Glass manufacturing developments in Russia, A (5) 169.
marbleizing, new lacquer process for, whereby practically any form of rock can be reproduced, A (11) 491.
matt etching and decoration of, A (8) 320.

Glass mechanical devices.
apparatus for controlling flow of molten, through discharge aperture, P (8) 339.
for feeding; fluid pressure cylinder, plurality of pistons, and means for effecting piston movements, P (1) 17.
for feeding molten, P (2) 57.
for feeding molten; container with outlet through which glass issues and glass-circulating means projecting laterally from axis at one side of outlet opening, P (3) 101.
for feeding molten; container with cylindrical discharge chamber and outlet; discharge-controlling plunger, and an arcuate gate adjacent to and forming continuation of wall of chamber for controlling the admission of glass to outlet, P (11) 510.
for manufacturing; pair of agitators for glass tank, P (1) 15.
for measuring turbidity of opalescent, A (7) 277
separating molten, into mold charges, P (8) 338
articles, machine for deforming; means for producing restricted heat zone; continuously moving tubular body through heat zone, P (7) 279.
articles, method of and apparatus for forming, P (2) 60.
-bending apparatus, sheet, P (3) 102.
blanks, furnace for heating; gas-heated tunnel chamber open at bottom with endless carrier for blanks, P (4) 143.
-blowing apparatus of suction-gathering type, P (12) 583.
-blowing machine; flowing elements disposed at plurality of blowing stations, P (8) 338.
means to gather charge by suction through lower end of mold, P (1) 16.
means to support bare blank of glass in position to be enclosed in mold, and means for centering blank, P (1) 16.
blown articles; making, apparatus for, P (5) 172.
continuous strip of, method and apparatus for producing, P (6) 220.
cutting machine; chuck; cutting wheels arranged to move forward and away from chuck, P (4) 142.
device for discharging molten; shearing device for periodically severing discharged glass, P (2) 57.
-drawing apparatus, P (8) 339, P (12) 581.
apparatus; compensating non-uniformity of temperature conditions of surface of bath by immersion of bait to initially chill hotter portion more than cooler portion of bath, P (6) 219.
flat sheet; reheating glass by means of oscillating flames, P (3) 102.
machine and method for; producing embryo sheet formation from constant source of supply of molten glass, subjecting it to a conditioning treatment, etc., P (4) 143.
sheet, receptacle for glass and compartment around container through which heat may be circulated, P (3) 102.
-fabricating apparatus; movable mold support with aperture for downward discharge of fabricated article, P (8) 338.
feeder, P (3) 102.

adjustable, P (2) 60.
container for molten glass; outlet opening in bottom through which glass issues; means for forming issuing glass into mold charges, P (7) 280.
cylindrical member extending up from floor of tank, providing open passageway for discharge of glass, P (8) 340.
extension from furnace and plungers projecting downward into receptacle at end of extension, P (10) 437.
receptacle for glass with bottom outlet opening vertical plunger projecting into glass over outlet; means for periodically reciprocating plunger vertically, P (5) 172.
reciprocating plunger type; means for independently varying time and stroke of plunger and timing action of shears, P (11) 514.
regulating, P (10) 437.
rotating tube mechanism for, P (3) 101.
timing mechanism for, P (2) 60.
-feeding mechanism, container for glass with bottom outlet opening regulating plug, yoke carrying plug, member connected with yoke and driving element connected to member for moving plug up and down, P (5) 172.
-feeding mechanism; intermittently emitting descending discharge of fluent glass from flow spout and cutting off quantities therefrom, P (7) 281.
flat sheet, drawing; cooler positioned transversely of glass sheet, of longitudinal series of separately regulatable sections, P (2) 58.
flower-vase inserts, method of making, P (1) 15.
-forming apparatus; with means for introducing fluid to glass blanks; conduit leading to blank retaining head, P (9) 380.
apparatus; mold and bottom plate; with molding surface of plaster of Paris, P (8) 340.
machine, P (3) 102.
machine, means for chilling corresponding sides of plurality of suspended charges of molten glass in plastic form, P (1) 16.
machine and process; method of handling glass blanks in making blown glass ware, P (9) 379.
machine; rotating carriage, molds thereon open at upper ends to receive charges of glass; guides individual to molds; means to sever and permit charges to drop into molds; mold-closing heads mounted on mold carriage, P (12) 579.
furnace; refractories of greater density than molten glass; cannot be dislodged by floating in glass, P (1) 15.
furnace, regenerative; glass-melting; flame and exhaust flue at each side; regenerating chamber at each side of furnace, P (1) 16.
furnaces; pouring device for; short downwardly extending spout of large cross-sectional area, one side of spout inclined, P (8) 339.
furnaces, tank block for; outwardly inclined corrugated face, P (8) 339.
-gathering ring; gathering opening, melting hearth, channel connecting hearth with gathering opening, P (7) 282.
grinding, apparatus for applying abrasive to plate, mechanism, P (4) 127.
method and apparatus; series of grinders, P (6) 219.
and polishing table for flat glass, P (2) 58.
process and apparatus, P (4) 141.
machines, method and apparatus for regulating, to maintain uniformity in volumes of glass charges fed to molds, P (11) 510.
manufacture of, apparatus for; melting tank to receive batch at one end, and deliver molten glass at other end, plurality of electrodes along sides and bottom of tank, P (2) 59.
method of placing rollers, P (10) 441.
methods and apparatus for; passing molten glass over series of dams of different heights, P (2) 60.
process and apparatus for; tank having bays in side walls, electrodes at inner ends of each bay; means for supplying current to electrode, P (2) 59.
relating to drawing apparatus in which glass is lifted vertically upwards in flat sheet by pairs of opposed rollers, P (10) 440.
-manufacturing machine and method, for continuously drawing tubes or rods, P (11) 512.
means for forming charge of molten, P (7) 281.
melting, etc., kiln for, P (6) 220.
-melting pots, properties and service of, A (6) 224.
-melting tank; arch member between 2 ends of tank, and mounted for vertical movement, P (10) 439.
mold comprising metal shell; composition lining P (2) 58.
-molding machine; mold for molding sheets or plates; suction for drawing molten glass into mold, P (1) 16.
-molding machine with turn-table carrying inclined trough and plurality of molds, P (1) 15.
molds, made from Dixon's Vanard iron, life of, A (10) 434.
molds, methods of making; shaping lining to conform to contour of article to be molded, P (2) 58.
molten, apparatus for feeding charges of, P (12) 582.
apparatus for feeding, receptacle with discharge nozzle; removable electrical heating unit, P (6) 220.
apparatus for gathering, P (12) 582.
apparatus for producing; container for molten glass; discharge port, means coacting with port for discharge of glass at intervals, P (12) 580.
apparatus for producing mold charges of; shear blades mounted for reciprocation toward and away from each other with outlet for discharge of molten glass, P (12) 580.
apparatus for producing mold charges of; vertically reciprocating implement working in glass in receptacle to control discharge of glass through outlet, P (5) 174.
delivery apparatus for receiving charges of, from glass feeder, and delivering them to plurality of glassware-shaping machines, P (12) 579.
feeding, P (4) 143.
guiding device for, comprising plurality of relatively movable guiding members for charges, P (5) 172.
means for forming and delivering charges of, P (6) 220.
method of and apparatus for feeding, P (12) 582.
method and apparatus for feeding, by centrifugal force, P (5) 172.
method and apparatus for producing charges of, P (12) 580.
mold charges of, apparatus for producing, P (12) 581.
shaping, P (4) 143.
parisons, method and apparatus for blowing, P (9) 380.
plate, apparatus for making corrugated, P (12) 583.
apparatus for making; pair of driven and cooled sizing rolls above slot extending longitudinally of slot at outlet and thereof adapted to receive glass and size it, P (2) 58.
apparatus (water-cooled roller) for producing, P (12) 583.
grinding tables or cars, apparatus for cleaning, P (2) 59.
-making, apparatus, P (4) 141.
method and device for manufacture of, P (5) 174.
polishing machines, theory and design of, A (10) 431.
surfacing car; pair of abutting cars, means for locking them together; means for maintaining top surfaces flush, P (8) 339.

transfer and laying apparatus, P (8) 340.
-polishing apparatus; an annular block, ringlike pad, member adapted to loosely surround block, polishing pad, and means for securing pad to ringlike member, P (2) 60.
apparatus; series of runners mounted for rotation and provided with plurality of polishing blocks, etc. P (12) 582.
machine; device for sticking ware onto punties and another device for carrying ware through a glory hole, P (11) 514.
pressing and blowing machine, P (11) 513.
process and apparatus for melting, means for spraying cooling fluid into space between glass batch and arch in cooling section, P (8) 340.
rolling, apparatus for, producing a continuous strip, P (6) 219.
sheet, apparatus for drawing, main sheet and 2 portions from separate sources, P (10) 438.
apparatus for drawing sheet upward from molten bath, P (8) 340.
apparatus for flattening, P (11) 512.
apparatus for making; cooling device extending across bath on each side of sheet adjacent surface of bath; a hollow shell cooled by circulating fluid through it, P (2) 59.
apparatus for making; smooth slabs, pivotally connected to form chain, P (1) 15.
apparatus for manufacture; casting roll of large diameter mounted for rotation, driven sizing roll above casting roll with bearings to hold 2 rolls, P (10) 439.
apparatus; traction roll movable toward and away from glass sheet, P (11) 512.
drawing apparatus, P (1) 15.
drawing, apparatus; melting tank, transverse drawing kiln connected with tank below glass level, means for electrically heating glass in kiln and for drawing sheet upward from kiln, P (4) 142.
drawing, apparatus; pair of similar directing members and around which molten glass flows to form sheet, P (8) 341.
drawing apparatus; tank with forehearth, opposing blocks across it spaced to provide drawing opening, and apparatus above opening for drawing sheet of glass upward, P (4) 142.
drawing; endless metal belt, means for cooling belt and means for polishing glass on belt, P (7) 279.
drawing, flowing molten glass from lower strata in tank into separate pool and flowing downwardly from pool onto slab, P (4) 144.
drawing machines, A (2) 54.
drawing; molten glass continuously flowed from tank into shallow receptacle, P (9) 380.
drawing sheet vertically from pot and flowing from pot any surplus glass, P (10) 440.
drawing of; wall at closed end of draw-pot, to permit constant overflow of glass from draw-pot, and means for drawing sheet from glass in draw-pot, P (2) 58.
forming; directing molten glass against upwardly moving surface, spreading laterally on surface, and causing surface to carry it past sheet-forming member, P (4) 142.
lip-tile arranged above the molten glass, etc., P (2) 58.
making; container for molten glass, means of heating electrically through resistance rod in tube of refractory material, P (4) 142.
making; to draw a sheet from open pool of molten glass, P (4) 142.
making; glass tank with outlet slot, endless belt of flexible sheet material with upper flight to receive glass from slot; rolls for sizing or dimensioning, P (4) 141.
method and apparatus for annealing and cooling, P (11) 511.
method and apparatus for flattening, P (1) 15.
method and apparatus for forming, P (1) 15.
method and apparatus for forming; drawing a sheet from mass of molten glass, positive means for forming edges on sheet; means above edge-forming means for preventing lateral movement of edges, P (11) 512.
method and apparatus for forming; deposition of mass of molten glass upon lower portion of inclined surface; tilting surface to reverse direction of incline, P (2) 57.
method and apparatus for producing, by moving glass downwardly through orifice in molten glass container, P (8) 340.
method and apparatus for treating, P (2) 57.
method of drawing, applying longitudinal drawing forces to sheet edges only at sheet source, P (10) 439.
method of forming; glass flows downwardly through elongated orifice, P (7) 279.
method of producing pressed, P (11) 511.
process and apparatus, for drawing, P (11) 511.
process and apparatus for making; feeding molten glass through submerged issue opening of glass container to forming pass, P (7) 282.
process of and apparatus for manufacture of; forming roll, an ironing block, P (10) 438.
production of, apparatus for; grasping and conveying, P (4) 143.
reinforced, method and apparatus for making, wire glass, P (3) 101.
stream of molten glass deposited on rotating drum and passed between rolls, P (3) 103.
width maintaining shield, P (10) 439.
sheeting, forming, apparatus; drawing sheet from molten bath and means for engaging sheet adjacent to edges, P (4) 143.
sheets, apparatus for handling; vacuum frame for carrying sheets, P (6) 219
or plates, forming apparatus for; main tank, working-out chamber, means for withdrawing glass from chamber to form sheets, and annealing chamber heated by radiation from main tank, P (4) 143.
plurality of, apparatus to create downwardly moving flow of molten glass and to separate flow to produce, P (6) 220.
-tank construction, P (6) 219.
tile, apparatus for making reinforced, P (12) 582.
tubes, machine for shaping ends of, P (12) 581.
ware, annealing, apparatus for, tunnel with ribbed floor and conveyer through tunnel, P (6) 220.
apparatus for handling; leer, leer conveyer, and means for alternatively heating or cooling ware placed on conveyer, previous to subjecting heat treatment in leer, P (5) 172.
apparatus for making bottles, etc., P (12) 583.
apparatus for manufacture; glass-receiving and forming apparatus, paddle means for applying settling force to charge between receiving and forming, P (12) 579.
apparatus for and method of annealing, P (12) 579.
transferring device; removing ware from mold and conveying it laterally to delivery station, P (10) 438.
transferring device, transfer arm swung about horizontal axis to lift ware from receiving position of leer belt, means for moving arm horizontally to distribute ware on leer belt, P (11) 513.
window, shawls, process for flattening, P (5) 172.
-working apparatus; rotatable mold table, gear carried by mold table, driving gear rotatable on axis displaced from axis of mold table, and reciprocable rack, P (11) 512.
apparatus, 2 glass-working units, having rotatable spider carrying plurality of glass-working units; mechanism for intermittently turning units in opposite directions, P (2) 58.
machine, means for holding each end of glass-tube blank, for successively advancing series of holders, aligning blanks relative to each other, continuously and synchronously rotating holders, locally heating

blanks and applying gradual pull longitudinally to form contraction on each of blanks, P (5) 174.
machine, utilizing pressing pin to be extracted from finished article, P (11) 512.
machine; vertical support, blow-head support, blow-head cylinder-and-piston units connected to blow-head support to produce vertical and swinging movement; supply pipes to cylinder-and-piston units; means of controlling flow, P (5) 173.
machinery used in making of electric light bulbs, A (11) 507.

Glass, mechanical production of, by Fourcault system, A (8) 329.
Glass melting, effect of amount of cullet on, A (9) 376.
heat recovery for economic, A (7) 276.
pots, properties and service of, A (5) 195.
tank, Amco "L" continuous, A (6) 214.
Glass melts, iron and iron compounds as coloring materials for, batches for 80 tints of glass, A (8) 334
metal, process of joining, by attaching molten glass to very sharp knife edge of metal, P (11) 515.
metallic reflections from, production of metallic lusters, A (8) 329.
Glass, method of feeding automatically at uniform state of fusion, P (11) 514.
of manufacture, early and present compared, A (10) 435.
of manufacturing; batch contains sodium chloride as soda material; exposed to steam to fix soda with silica at temperature not to melt batch, P (11) 515.
for measuring softening temperature of, A (5) 195.
of silvering, A (4) 136.
of treating, for clinical thermometer by heating and cooling in water, P (11) 515.
Glass mirrors, census of manufacturers, B (10) 436.
mixtures, modern, use of coloring agents, A (7) 273.
modern Swedish, A (11) 492.
modern Swedish engraved; striking example of art in industry, A (11) 491.
molded, with raised relief treated with white acid from potash and effects; toned down with fluoric acid, P (12) 584.
molds, chromium plated, progress made with, A (9) 377.
molds, materials for making; properties; composition, A (3) 100.
molten, glasshouse tests to determine differences in general characteristics and working properties of, A (6) 214.
and mosaic works of art in Gallery for Christian Art in Munich, A (8) 319.
mosaics, German, history of, A (3) 91.
mosaics, various methods obtained, without working details, A (12) 573.
mysterious; incomparable, A (6) 216.
new, resistant to heat, pressure, and acid, A (8) 329.
new; of value to humanity transmits ultra-violet rays, A (11) 508.
in 1926, A (6) 217.
Old, European and American, B (3) 93.
opal, suitability of tanks for production of, A (12) 575.
opal, use of tanks for; white glass tanks, A (12) 576.
opaque, aluminum hydroxide for manufacture of, A (5) 170.
origin of, a historical discussion of A (5) 170.
(or other substance), method of decorating, P (11) 496.
painting, technique of, A (4) 127.
painting, varieties of, A (7) 265.
paste, A (12) 554.
with pearly luster, method of manufacturing, P (11) 495.
penetrability of ultra-violet rays through, of special or complex composition, A (10) 435.
penetration of, by rock salt at high temperature, A (1) 12.
photo, in Belgium, A (2) 54.
plant, description of modern, A (1) 13.
plant operation, pure gases in, use of, A (7) 299.
plastic, method of and apparatus for conveying, P (10) 438.
Glass plate, Bicheroux process of making, by casting and rolling molten glass. A (11) 507.
manufacture, future trend in, A (6) 216.
some aspects of, practice, composition of, choice of raw materials. melting cycle, A (3) 99.
time-temperature curves for visible devitrification of, apparatus, lengths of crystal measurement, A (1) 14.
Glass pockets in regenerative pot furnace, A (7) 276.
polished wire, imitation, manufacture of, A (1) 12.
porous, method of manufacturing, P (11) 515.
postwar apparatus, composition of, linear thermal expansion of, A (7) 274.
Glass pot furnaces, advantages and disadvantages of various types; following compared, Siemens, Siebert, Knoblauch, A (8) 331.
production, theory of, A (7) 290.
solution, studies of effect of various glass batches on rate of, A (7) 289.
and tank blocks, mixtures for, specifications for, A (7) 290.
Glass pots, faults of, influencing service life, deterioration, and failure, A (11) 530.
method of cleaning bottoms of, P (3) 102.
for window-glass industry; service requirements of special clay shapes for Lubbers, Colburn, and Fourcault window-glass machines, A (12) 586.
Glass, potash-lead oxide-silica, of English crystal type, effect of moisture on melting, working; other properties of, A (3) 96.
and pottery trades, 50 years' progress in, A (12) 625.
preparation of plane surfaces of, A (2) 53.
pressing, article dealing with production of glass jewelry, A (8) 331.
press-ware manufacture, P (2) 61.
Glass problems discussed, fundamental research stressed, A (3) 99.
of manufacturer, A (3) 99.
Glass, process of collecting, by means of a suction mold, P (4) 142.
of making, high absorption glass for X-rays, P (9) 381.
of manufacturing lustered, P (11) 496
of manufacturing, special; crystallizing thin metallic film on surface of glass by heating, P (11) 496.
of opacifying, P (11) 496.
for surfacing sheet material, P (2) 59.
Glass, producing, suited particularly for insulating purposes, P (5) 174.
production of mother-of-pearl decoration effects on, and artificial pearls, A (4) 128.
products, industrial, of Corning factory, A (6) 214.
products, Pyrex industrial, offered by Corning Glass Works, A (5) 171.
Pyrex, composition, thermal expansion and resistance of, A (7) 274.
quality, from German raw materials, A (12) 572.
red, for pressed ware, A (10) 435.
reinforced, actinism proof, P (1) 15.
refractory, method of making; providing separate layers of transparent glass of different densities, P (2) 59.
relation between chemical composition and thermal expansion of, A (5) 195.
relation of composition of, and viscosity of same, A (12) 577.
reliefs for; photographic production of, process and formulas, A (7) 256.
removing, with paving breakers, A (6) 215.
researches in, at Mellon Institute, A (7) 267.
researches by Samsoen's, A (3) 101.
Resista, 1923, composition, thermal expansion and resistance of, A (7) 274.

Resista, 1925, composition, thermal expansion and resistance of, A (7) 274.
resistance of, to chemical attack, chemical agents, boiling water, hydrochloric acid and sodium carbonate solutions, A (3) 99.
resistant to impact and pressure; composition, A (8) 328.
ring ruptures, investigation, types, cause, A (8) 335.
rupture of, study of, A (9) 374.
rupture of, study of; cone fractures, hackle texture, ribbing discussed, A (3) 97.
safety nonsplintering glass, Kinonglass described, A (7) 268.
Glass, sheet cylinder-drawing furnace, P (12) 606.
forming, P (12) 583.
making, P (12) 583.
manufacture of, P (12) 581
method of and apparatus for forming, P (12) 582.
method and apparatus for surfacing, P (12) 582.
production, P (12) 582.
Glass, shock-resisting; laminated glass product held together by transparent membrane containing wires, P (9) 380.
signal green, and light absorptions of various copper oxide-containing glasses; absorption data on glasses; effect of other constituents on light absorption, A (8) 337.
signal green, containing 4.5% CuO, A (1) 12.
Silex, composition; thermal expansion and resistance of, A (7) 274.
silica, process of manufacture, P (3) 107.
silk, method of manufacturing a bracelet of, P (11) 495.
silky, process of manufacturing, P (11) 515.
silvered, protecting, P (12) 585.
skimming, method and means of, P (8) 341.
soda-lime, analysis, A (5) 198.
soda-lime, chemical analysis of, methods of, used by Bureau of Standards, A (12) 615.
soda-lime, and clay reaction of, experiments on study of, A (12) 586.
soda-lime-silica, function of arsenic in, A (10) 430, A (10) 431.
sodium-aluminum borosilicate, production of, P (6) 248.
softening temperature of, measurement of, A (9) 374.
special, method of manufacturing, P (11) 496.
spun, and glass figures, production of, A (7) 256.
Glass, stained, art, periodic plagues in 2nd half of 14th century and effect, A (8) 329.
banquet hall decorations, A (7) 268.
Cologne cathedral windows, A (8) 320.
English, B (3) 93.
of Hans Holbein, the elder, in cathedrals o Eichstatt in Franconia, A (8) 319.
history of, in S. Germany, A (7) 269.
a lost art? A (1) 4.
made in electric furnace, A (11) 508
new motives in, A (8) 320.
produced by Enich Waske, A (8) 329.
Glass stainers, differences between English and foreign, in 16th century, A (7) 268.
staining, Mathias Grunewald and, A (5) 164.
staining, transition from mosaic to melt method in, A (7) 269.
strain in, photoelastic phenomena, A (9) 375.
strain tester for, A (7) 276.
stresses in, methods of detecting, A (2) 53.
structure changes in, occur at 500–600° over temperature range of 50°, termed the "critical range," A (12) 573.
studies of conduction process in, A (6) 218.
study of, at Sheffield, the year's progress, A (6) 214.
substitute, Ivoit; new artificial material for bead industry, A (4) 138.
suitable for casting, P (12) 583.
sun dials, stained, made in 16th century, A (8) 329.
superimposed, A (12) 554.
Supremax 1565, composition, thermal expansion and resistance of, A (7) 274.
surface, liquid for preventing dimness of, due to steam or water drops, P (11) 516.
surfaces, formation of films of lead sulphide on, A (12) 573.
synthetic, pollopas, properties of, A (10) 484.
table ware, machine for blowing, P (12) 582.
Glass tank blocks, design and service of, effect of, on life of tank, A (11) 505.
blocks, specifications for mixtures for, A (7) 290.
crown flues preheat air, description of, A (4) 134.
furnaces, relation between size, capacity, and heat consumption of, with regenerative firing, A (7) 278.
melting and withdrawing ends; metal cooling pipe submerged in glass at withdrawing end, P (4) 141.
practice, some aspects of, A (4) 134.
practice, some aspects of American, A (5) 198.
of tunnel kiln possesses many advantages, A (6) 213.
Glass tanks, batch feeding to, P (6) 220.
tapping, without accidents, A (8) 330.
technical analyses of raw materials for, determination of potash salts, A (12) 615.
Glass technologic research, high temperature microscope and significance, A (6) 230.
technologists gather in Detroit, A (5) 169.
technology, developments in, during recent years, A (7) 267.
Tempax; composition, thermal expansion and resistance of, A (7) 274.
in tension, investigation of, A (6) 216.
testing prisms and glass plates, A (1) 12.
testing of quality of, A (8) 329.
thermophosphorescence, measurement, produced by radium emanation, apparatus, rates of decay of intensity of radiation measurements, A (8) 334.
Thuringian, chemical composition; properties; types, A (2) 54.
trade, flat, in Chile, A (5) 169.
translucent, composition of boric acid, alkali, silica, and halogen salt, P (4) 141.
transmission of vitalizing or activating rays through, A (11) 506.
transmission of vitalizing rays through, A (12) 570.
transmitting ultra-violet rays, of empirical formula 0.25–1.00 alkali, $6SiO_2$, $1–3B_2O_3$, P (11) 515.
transparent to ultra-violet rays, titanium and iron content reduced, P (8) 342.
tube and rod, drawing of, A (8) 330.
tubes, or rods, etc., manufacture of, P (12) 583.
tubes or rods, method and means for the continuous manufacture of, P (10) 437.
tubing works, (General Electric Co.) highly efficient unit, A (12) 570.
ultra-violet ray absorbing, containing didymium and cerium, P (8) 341.
ultra-violet transmission, produced by Pittsburgh Plate Glass Co., A (12) 570.
ultra-violet transmitting, Vitaglass A (4) 135.
ultra-violet transmitting, 86% for wave lengths of 280 $\mu\mu$ through 2 mm, thickness (Corning Glass Works), A (2) 55.
upper critical annealing temperature of, relationship between chemical composition and, A (2) 53.
use of aluminum sulphate in making, P (3) 103.
valence of arsenic and antimony in, A (6) 216.
variations in, due to variations in character of fire, A (4) 134.
vessel with tapered extension, method of making, P (12) 585.
viscosity of, apparatus described, A (3) 99.
viscosity of, relation of, to composition of same, A (12) 577.
viscous properties of, A (6) 214.
Vitaglass, new window, transmission of, A (3) 99.
Vitaglass, properties of, A (3) 99.
volumetric apparatus, tests on by National Physical Lab., A (9) 411.
Vulkanit, composition, thermal expansion and resistance of, A (7) 274.

Glass ware, art design of, A (6) 249.
blown, making, P (12) 583.
brilliancy and composition of, A (6) 215.
decorated; process of making, P (2) 57.
decorative, firing with electric heat, A (7) 256.
decorative, method of manufacturing, incrusted glass articles, P (1) 14.
deformation of, due to unequal cooling during manufacture, A (6) 216.
electroplating of, by copper hydrosol, A (12) 570.
fabricating, in suction-fed molds, P (7) 279.
hollow, method of making, P (9) 380.
illuminating, surface brightness of, A (9) 378.
industry, design in, A (12) 571.
iridescent, discovery and manufacture, A (2) 54.
light diffusing colored; mat surface, opposite side covered with colored transparent paint, P (11) 516.
machine blown, temperature gradients in the fabrication of, types of machinery, methods of manipulation, A (3) 100.
with marble figure, process of manufacturing, P (11) 496.
method and apparatus for forming; causing molten glass to flow along directing means around opposite sides of tip portion disposed at discharge end, P (7) 281.
Pittsburgh exhibition brings out new dinner ware shapes, A (4) 127.
pressed, new motor-driven machine for making high-grade block and joint mold, A (9) 377.
pressed, one machine for complete line of, A (1) 12.
process of blowing letters or design on narrow part, P (11) 496.
process of coloring by spraying with copper sulphate and sulphuric acid solution, P (4) 129.
rose-colored; formulas, A (4) 134.
-shaping machine; plurality of molds, permanently vertical pressing plunger associated with molds; single-pressing mechanism to actuate plungers successively, P (12) 579.
for ship service, issue standard list of, A (12) 570.
storage and packing of, A (12) 570.
Surface Brightness of Diffusing, for Illumination, B (4) 141.
variety of color and crystal, made by Paden City Co., A (1) 4.
Glass, weathering of, particularly if rich in alkalis, when stored in damp place, A (4) 139.
Glass, window, bloom on, cause of, A (10) 435.
transmission of light through, A (2) 54.
Glass windows, colored, of Stephaneum at Aschersleben, A (7) 269.
stained, Cimabue's cartoons for, A (12) 557.
stained, original type of, A (7) 267.
variegated, in Middle Ages, A (7) 268.
Glass wire, method and apparatus for making, P (11) 512.
wool as insulator for refrigeration purposes, thermal conductivity at various densities; Sil-O-Cel, powdered cork, cotton, sheep's wool, A (1) 10.
Glass works, Manchester, table glass, etc., for mechanical, scientific and industrial purposes manufactured, A (2) 52.
practice, fuel economy in, A (10) 433.
refractories, deterioration and failure, corrosion, reducing corrosion, effect of composition on corrosion, A (10) 446.
some uses of commercial sillimanite in, A (6) 223.
technical control in mass production, A (5) 171.
Glasses, absorption of, for ultra-violet light, recent classification, A (7) 277.
acidity and alkalinity of, ionometric measurement of by means of Luers quinhydrone potentiometer, A (10) 436.
alkali-lime, sulphate as refining material, A (8) 335.
aluminous alkali–lime–silica, use of arsenic and sulphates in fining of, A (7) 271.
antique, color and composition of, A (5) 165.
antique, composition of, A (8) 330.
cause of white ring on edge of, melted by coal gas, A (12) 572.
chemical analysis of, critical survey of methods in use, A (10) 429.
chemical analysis of, notes on some methods used, A (10) 430.
chemical resistance of, A (5) 171.
Glasses, colored, developed by Bureau of Standards, A (6) 217.
iron and iron compounds as coloring materials for batches for 80 different tints of glass given, A (8) 334.
origin of, in stained-glass windows of Middle Ages, A (8) 320.
Glasses containing barium, P (8) 341.
constitution of, the determination of, A (2) 52.
dielectric constants, phase differences, and power losses of 11 commercial glasses, A (7) 278.
of different compositions, harmful effects of moisture absorbed from atmosphere on, A (12) 570.
on dispersion of light by, and measurement, A (6) 216.
electromotive properties of, A (1) 11.
elementary test of disintegration, by atmospheric agents, A (11) 506.
fining of pure and aluminous alkali–lime-silicate, with saltcake or arsenic, A (1) 38.
flint, judging quality, by method of surface devitrification, A (6) 218.
fluoride ingredients of, behavior of, A (9) 374.
gases occluded in, A (7) 273.
germanium, properties of, A (2) 55.
and glazes, coloring agents in, for production of many different colors, A (11) 509.
and glazes, copper and iron as coloring agents in; effects produced by them and their compounds, A (12) 571.
infra-red absorption of didymium in, and in solutions; measurements made on 8 glasses from batches containing small amounts of Nd_2O_3, Pr_2O_3, Sm_2O_3, A (8) 337.
ions in, interchange of, A (1) 11.
lead, on compounding of, A (12) 569.
lead, durability of, and Peddle generalization; constitution and weathering, for calculating weathering, A (3) 97.
lead, studies on chemical and physical properties of, A (8) 336.
light-diffusing, manufacture of, A (7) 272.
light-scattering, measurement and evaluation of, A (12) 576.
method for control of glass composition by measuring softening temperature, A (6) 213.
method for measuring softening temperature of, A (5) 198.
methods used in analysis, A (6) 249.
Muehsam collection of drinking, in America, A (12) 559.
Old English, Their Chronology and Sequence, B (3) 93.
opal, X-ray patterns, size of particles, scattering coefficient, A (3) 97.
opalescent, investigations on, theories of mechanism of opacification, A (4) 138.
opaque and frosted, measuring degree of diffusion apparatus for classification, A (3) 91.
opaque and ruby, bone ash in; batches given, A (8) 335.
optical, apparatus for determination of extinction coefficients of, for light in visible spectrum, A (4) 158.
optical tarnishing of, method for determining weathering properties of glass, A (7) 277.
ornamental, production by hand; possibility of machine methods, A (7) 256.
physical properties of; relationship to chemical composition; mode of preparation, A (3) 101
potash–lead oxide–silica; effect of arsenic on physical and working properties, A (9) 376.
potash–lead oxide–silica, influence of moisture on mixing of batches, A (3) 96.
potash, melting of, using potassium in form of potassium carbonate, P (12) 586.
prevention of color development in, P (12) 585.
for protection against harmful rays; composition, A (10) 434.
pyrometer, effective wave-length of, A (1) 12.

relation between chemical and thermal expansions of, A (5) 198.
relationship between chemical composition and resistance to action of chemical re-agents, 3 types studied, results of solubility tests on commercial glasses, A (3) 98.
ring test for casing, A (12) 576.
rough-cast, measurement of light-transmission of, A (7) 276.
simple; critical survey of method in use for analysis, A (6) 249.
simple weathering test for, A (5) 172.
soda-lead-oxide, properties of some, A (6) 216.
soda-lime-magnesia, durability of, A (7) 273.
solid (lump); course of crack in breaking up of, through blow or impact, A (12) 570.
stability of, in soda-lime-silicic acid system, A (12) 569.
surface devitrification of, causes, of, on heating, A (3) 96.
surface devitrification of alkali-lead silicate and alkali-silicate glasses; method of studying, effect of composition of glasses, A (10) 432.
thermal expansion of, relationship between chemical composition and, A (9) 374.
thermal history and optical constants of, A (1) 12.
thermometer, on aging of, experiments to determine suitable treatment for artificially aging glass, A (7) 277.
transparent, containing zirconia, effect of zirconia on properties of glasses, A (9) 376.
weathering of, A (6) 218.
window, transmission factor of commercial, A (2) 56.
and wires, apparatus for measuring thermal expansion of, A (6) 247.
yellow, batch formulas, methods of melting, A (8) 328.
yellow and brown, A (12) 572.
yellow; composition; methods of producing, A (8) 330.
zinc, durability of, effect of substituting zinc for lime on weathering, A (3) 97.
Glassy state, investigation of, by method of forced crystallization, A (6) 213, A (9) 375.
Glauber salts from Karabugas, gulf of Caspian Sea, analysis of, A (7) 302.
Glaze, chromium red, A (4) 127.
cold, upon building material, as concrete, sandstone, clay, brick work; method for production, A (10) 452.
for fibrous cement products, P (12) 569.
fit, fundamental study of, to determine effect of various oxides on different properties of glazes, A (12) 592.
fundamental study of, modulus of elasticity, thermal expansion, and tensile strength of bodies and glazes, A (3) 109.
Greek black, A (5) 198.
leadless, statistics on use of in Brit. potteries, A (7) 294.
measure thermal expansion, by use of interferometer method, A (12) 592.
-trimming machines, several new, described, A (9) 394.
Glazes, advances in making, A (4) 160.
ceramic, preliminary study of resistance to abrasion of; control and methods of determination, A (4) 151.
Chinese-red, researches on, A (5) 164.
chrome-red crystalline, (17), A (11) 493.
colored, determination of tint of, on basis of Ostwald's color theory, A (7) 255.
colored, uranium oxide, and crystals in low temperature glaze combinations, A (11) 539.
coloring; effect of zinc oxide on; of chromium, cobalt, and iron oxides, A (3) 91.
enamels, etc., deep, bright, full color tints in cover impossible, A (11) 505.
faulty, causes of; Seger's rule for compounding to fit certain bodies, A (8) 352.
heat expansion and annealing temperature of; special reference to fitting of glazes to bodies, A (7) 293.
internal, for salt-glazed ware, A (12) 586.
low fire, using rutile, A (5) 198, A (6) 204.
Glazier's trade, artifices in, A (8) 328.
Glazing ceramic bodies, P (6) 230.
machine for long tumbler and stem ware, A (10) 433.
Glycerine, crystallization of, A (12) 619.
Gold preparations for ceramic purposes: manufacture of, A (12) 557.
Gradation of machine-broken stone; effect on products of shape of crushing surface, A (9) 370.
of machine-broken stone; study of percentages of various sizes produced in jaw and gyratory crushers, A (6) 231.
Grading solid materials, method and apparatus for, P (6) 233.
Graphite, B (3) 107.
Characteristics, Production, Manufacture, and Uses, B (9) 389.
flake occurrence of, on Eyre Peninsula, A (12) 614.
process for purifying, enriching, or refining crude, P (3) 107.
thermal expansion of, longitudinal and transverse sections of, from 20-600°C, A (8) 345.
Gravity determinations, pendulum apparatus for, A (2) 84.
Greece, hand molded tile, preparation of, in, A (10) 452.
Greek Art, Classical Type of, B (3) 93.
Greek pottery finds at Bouboustа, A (10) 421.
Grinder, ring wheel, P (11) 490.
Grinding ball and process of making, comprising pyrophyllite baked at high temperature, P (11) 537.
in cement industry, A (8) 325.
crushing, by use of globular grinding bodies in ball, drum, and tubular mills, having 1, 2, 3, 4, 5 flattened surfaces, P (12) 600.
dry, clay to 80-mesh, 2 installations for grinding terra cotta clay; advantages and use of air separation, A (11) 532.
and drying machine for clay and other plastic materials, P (3) 111.
efficiency and its relation to flotation practice; derivation and use of "grinding index," A (1) 40.
fine, machines, A (5) 185.
research on theory of, IV, A (3) 120, 121.
of rock products, air separation methods used in, A (7) 297.
machine; grinding wheel with annular operative surface, regulating wheel with annular operative surface, and frame for mounting the 2 wheels, P (12) 554.
machines and grinding media; efficiency of, with special reference to ball and tube mills, A (10) 483.
materials, testing serviceability of loose; proposed method, apparatus, data on various abrasive materials, A (8) 316.
mills, rubber as lining for, A (7) 297.
regulations, 2 certificates of exemption by Brit. Govt. covering portable and precision grinding machines, A (3) 90.
Grinding wheels, elastic bond for; method of applying, P (8) 317.
for face grinding, types of abrasive used with various metals, A (1) 3.
manufacture of, development, present methods, finishing and testing grades, control of composition, A (1) 2.
process of manufacturing; mixture of feldspar, fluorspar, or cryolite, oxides or sulphate of iron, amalgatolite, and sea-weed solution bond of Carborundum wheel, P (11) 490.
structure of abrasive grains desired in, size, fracture, microscopic properties, color and grain preparation, of garnet grains, A (12) 554.
Ground coat and enamel, agreement of, A (6) 212.
Ground coats, sheet steel, making and firing of, A (5) 198.
Ground glass joints, lubricants for, A (10) 455.
Growth ratio of crystals, effect of Bismarck Brown and Diamine Sky Blue on, A (11) 539.
Grunewald, Mathias, and glass staining, A (4) 164.

Gypsum and anhydrite, notes on chemical and microscopic determinations of, A (5) 165.
dehydration of, A (11) 499.
dehydration, thermal analysis of, A (11) 498.
deposits of Moose River (northern Ontario), A (3) 115.
electrical calciner for, description of experimental model, A (7) 259.
expansion of calcined, during setting; greater in finely-ground than in coarsely-ground, A (11) 498, A (12) 561.
hydraulic or estrich, for floors, properties, application, uses of, A (11) 499.
industry, history of, A (8) 362.
industry, standard definitions of terms relating to A.S.T.M. C.11–26, A (1) 6.
method of manufacturing floor and wall tile from, P (11) 502.
mixes, modulus of rupture and elasticity of; effect of amount and type of filler, A (1) 6.
modern rotary kiln for calcination of, A (12) 561.
molding plaster; A.S.T.M. specifications for, A (1) 6.
occurrence and mining of, in S. D., A (7) 301.
plaster, dry plaster of Paris mixed with liquid-fiber mixture, P (9) 373.
plaster, physical behavior, requirements of ceramic trade, care of plaster molds, A (7) 259.
pottery plaster, A.S.T.M. specifications for, A (1) 6.
preparation and uses, A (8) 322.
processing by calcining with silicic acid or clay to produce greater resistance to weather, P (5) 168.
products in Canada in 1925, A (6) 210.
products plant in Montana, a modern, A (5) 166.
synthetic, recovery and uses, A (5) 166.
tile, manufacture of, A (9) 370.
tile from synthetic calcium sulphate, A (7) 260.

Haban pottery in Brooklyn Museum, history of makers, A (12) 556.
Hafnium and zirconium phosphates, process for dissolving, mixture, P (10) 480.
Hagen system, American electric enameling furnace, described, A (10) 428.
Hairlines, preventing, in pottery, A (1) 29.
Haldenwanger filter, description of, A (9) 392.
Hardinge mill and air classifier; grinding terra cotta clay to 80-mesh, advantages; air separation, A (11) 532.
Hardness of materials, neglected in granulometric sieve analysis, A (4) 160.
relationship between Rockwell and Brinell numbers; equations, A (8) 360.
of rocks, tables of, method of determination, drilling speeds, A (9) 399.
testing by diamond cones, Brinell balls, and Rockwell method, A (10) 455.
of various ceramic bodies, A (2) 76.
Harper electric kiln for porcelain up to 1500°C, A (1) 32.
Hauynite, structure of, A (9) 406.
Heat-balance of ceramic kilns; Hoffman continuous coal-fired kiln; temperature-gradient curves, etc.; and thermal efficiency, A (12) 601.
in industrial plants, A (6) 249.
Heat capacity of calcium silicate, A (1) 36.
capacity of various ceramic bodies, A (2) 76.
conduction, fundamentals of, A (6) 234.
conduction in steel, anomalies in, A (2) 51.
Conductivity, Fundamentals of, B (8) 357.
convected, and instrument for use in measuring, A (6) 242.
convection, in gases and liquids, A (6) 243.
convection of, and similitude, A (6) 243.
Economy in Ceramic Industry, B (7) 299.
economy of rotary kiln, A (10) 460.
of evaporation of liquids of high boiling points, apparatus for determination, A (6) 241.
flow in periodically-heated walls of variable heat conductivity, A (10) 480.
of formation of calcium ferrates, A (7) 306.
of fusion, theory of, A (5) 193.
in glass industry rational utilization of, fuel consumption of various types of furnaces, design of gas producers, A (8) 333.
Heat-insulating material for high-temperature metallurgical plant, properties of, A (6) 236.
materials, qualities required of, factors determining most suitable thickness of insulating coverings, A (3) 105.
refractory material, P (5) 183.
loss in flue gas, A (12) 602.
losses, determination of, through furnace walls, A (5) 186.
losses in periodic kiln, A (6) 234.
recovery and driers for brick plants, A (11) 518.
required to fire ceramic bodies, A (7) 298.
required to fire ceramic bodies, interval specific heats of 23 refractory clays; kiln efficiencies, A (12) 615.
shock, resistance to, of chemical stoneware bodies, A (9) 400.
technologic work measurements, A (7) 303.
Heat-transfer in furnaces, phenomena of; circulation of hot nonluminous products of combustion important, A (3) 96.
in furnaces, some observations on, A (4) 137.
through insulation, A (6) 234.
in pipes and oil and fluid flow, descriptive bibliography, A (9) 412.
terms, definitions, A (6) 234.
Heat-transmission data, status of, knowledge in refractory field, A (2) 66.
fluid, for high temperatures in industrial processes, A (2) 70.
Fundamentals of, B (9) 408.
methods used to measure, A (2) 70.
Heat utilization in ceramic plants, A (6) 229.
waste, using to aid production, A (8) 352.
waste, utilization, A (12) 586.
Heater, constant-temperature, for sheet-glass drawing machines, P (11) 511.
Heaters, feed water, types of, applications, A (11) 536.
Heats of combustion of different pure carbons, existence of amorphous carbon, A (10) 474.
of formations of sodium, potassium, and barium, fluosilicates, A (10) 472.
interval specific, of 23 refractory clays, method and apparatus described, A (12) 615.
Heavy clay industry, consumption of power in, A (10) 441.
product bodies, control of clay content, A (10) 443.
Products Division of the AMERICAN CERAMIC SOCIETY papers at Detroit meeting, A (6) 195.
products, flow sheets for manufacture of, A (5) 175.
products plant, power consumption in, A (5) 195.
Heavy clays, physical properties, of, A (9) 381.
High-frequency furnaces, theory and construction of induction furnaces; metallurgical importance, A (12) 605.
induction furnaces, development and description of, A (3) 113.
High temperature metallurgical plant, properties of heat-insulating material for, A (6) 236.
Hoffman kiln, A (6) 233.
heat-balance of; temperature-gradient curves, etc.; thermal efficiency, A (12) 601.
Hoffman ring furnace, changes in design of, A (10) 460.
Holland tunnel and its ceramic tiling, A (11) 545.
Hollow brick or building tile and wall structure, P (2) 63.
Hollow building tile, under fire, tests conducted at Bureau of Standards, A (7) 283.
Hollow building units, rectangular hollow building tile, P (9) 381.
Hollow tile, firing in scove kiln, A (10) 459.
plant of Eastern Illinois Clay Co., strictly modern in every detail, A (11) 517.
promotional bureau to further use of, A (1) 18.
Humidity changes, on nature of influence upon composition of building materials, A (6) 221.
Hungarian bauxite industry, A (10) 468.
Hydrated lime, chemical analysis of, A.S.T.M method of, A (1) 36.

Hydration of dicalcium and tricalcium silicate, research on, A (5) 166.
Hydraulic cements, catalyst for, P (7) 263.
Hydraulic compounds in iron and aluminous cements, investigation of, A (6) 206.
Hydrion concentration, diagrammatic representation of, A (10) 473.
Hydrogen Ion, B (3) 119.
Concentration, B (1) 38.
control in ceramics, A (5) 198.
control in industrial processes, A (11) 339.
effect of, on feldspar and flint suspensions, A (6) 228.
and electrical conductivity of clay slips, I, plant study, A (8) 350.
and electrical conductivity of clay slips, II, laboratory study, A (9) 401.
method and apparatus for determining; double wedge prism and 2 receptacles for holding sample, P (4) 159.
of solutions, use of glass electrodes, A (10) 471.
Hydrolysis of zirconium chromate, A (5) 192.
Hydrometallurgy, A (6) 239.
Hydrosols of Al_2O_3, Fe_2O_3 and, Cr_2O_3, effect of hydrogen-ion concentration on viscosity of, A (1) 37.
Hydrothermal alteration of certain silicates, feldspars and spodumene, effect of different solutions at various temperatures and pressures, A (10) 468.
Hygrometer employing glycerine, described, A (2) 84.
hair, A (6) 242.
wet-and-dry bulb, A (6) 242.
Hygrometers, some modified forms of, A (6) 242.

Ignition, loss on, determination of, in soda-lime glass, methods used at Bureau of Standards; recommended for routine work; accuracy, A (12) 615.
Illinois Clay Workers' Assn., report of 49th annual meeting of, A (8) 362.
Illinois, limestones of, economic geology of, A (7) 301.
Impact strength of chemical stoneware bodies, A (9) 400.
of various ceramic bodies, A (2) 76.
Imports, American valuation of, favored, A (10) 484.
India, bauxite in, A (1) 34.
clays of, A (6) 238.
cyanite and sillimanite, A (5) 180.
manganese in, A (1) 34.
Indian garnets, composition of, A (7) 253.
Induction furnaces, theory and construction of; considerations of metallurgical importance, A (12) 605.
Industrial chemistry in Japan, research institutions and scientific societies, A (10) 469.
furnaces, recuperators for; description of Amco, Calco, Fitch, Mantle, Morgan, Dyrssen recuperators, A (12) 604.
management at helm of prosperity, A (9) 410.
Inorganic Chemistry, General, B (11) 543.
Inorganic Substances, Properties of, 2nd Revision and Enlargement of Tables of Properties of Over 1500 Common, B (11) 543.
Inorganic and Theoretical Chemistry, Comprehensive Treatise on, B (9) 408.
Inspection protects quality of ware; types employed in sanitary ware industry, A (9) 412.
Instruction, art, in potteries, A (7) 255.
Instrument for use in measuring convected heat, and, A (6) 242.
Insulating material, ceramic, black porcelain, formula, P (9) 390.
ceramic, sillimanite crystals and glassy matrix, P (8) 353.
impact testing; discussion, A (4) 152.
Insulating sheets from fibrous vegetable materials, magnesite, and solution capable of reacting with magnesite, P (12) 595.
Insulation of ceramic kilns, methods of heat transmission; properties of materials; data on fuel savings; properties of Sil-O-Cel, A (3) 112.
and convection currents, A (10) 448.
of electrically-heated equipment, formulas for calculating heat losses for proposed wall construction, A (2) 70.
heat, A (5) 179.
high temperature composition of, British and American practice, A (2) 87.
of kilns, methods and materials used, A (10) 458.
of pottery oven; materials and methods used, A (11) 534.
selection of proper furnace, A (6) 236.
spark plug; special porcelain containing mullite and magnesium aluminum silicate, A (12) 593.
thermal conductivities of, for temperatures up to 1000°F, A (2) 65.
Insulator, basalt as an, mechanical and electrical properties of, A (9) 392.
cement in, process of hardening, P (11) 535.
high-tension, P (12) 593.
improvement in, by coating with poor heat conductor, P (11) 535.
improvement in manufacture of, P (11) 534.
means for securing together plurality of superposed insulator sections, P (7) 295.
method of fixing; filling space between porcelain body and pin with melted alloy grains, P (11) 535.
parts, process of assembling, P (2) 69.
a plurality of units arranged in superposed relation; contacting faces formed with mating recesses; means for securing units, P (7) 296.
porcelain, improvement in joints of, P (11) 535.
for refrigeration purposes, thermal conductivity of glass wool at various densities, A (1) 10.
support; apertured lugs, clamping member, and securing bolts extending through inner lugs of clamping segments and through outer lugs and lugs of plate, P (12) 594.
of 2 porcelain parts cemented together with glass more fusible than porcelain glaze, P (11) 535.
Insulators, apparatus for testing the insulating qualities of, for electrical power lines under voltage stress, P (12) 594.
electrical, for use in construction of large transformers, P (11) 534.
of fused quartz, A (9) 377.
high tension, development; types; details of construction, A (9) 392.
insulating rods or studs formed of bundle of rods of textile material held in a compressed condition by binder such as Bakelite, P (12) 628.
method of and apparatus for making, P (4) 153.
method and apparatus for testing a plurality of electrodes; means for charging electrodes to graded potentials, P (1) 31.
nature of electrical breakdown of, A (9) 392.
porcelain, simplification of, A (10) 452.
porous clay, P (12) 595.
simplifications of, A (3) 109.
International Critical Tables, Vol. II, B (12) 627.
International Exposition of Modern Decorative and Industrial Art in Paris, 1925, report of commission to, A (3) 91.
International Society of Study of Peatlands, A (12) 626.
Interval specific heats of 23 refractory clays, method and apparatus described, A (12) 615.
Inventions, advice on filing patent applications, A (2) 87.
and Patents, Development and Promotion, B (12) 627.
Investigation, brick-wall, A (5) 175.
of glass in tension, A (6) 216.
Investigations, Report on, at Lubaantum, British Honduras, in 1926, B (4) 128.
Iodoeosin test on powdered glass, A (9) 378.
Ionic structure of faces of crystal used; effect of dyes and gelatin on growth ratios of potassium alum crystals, A (11) 539.
Iron casting, permanent molds for, A (8) 327.
Iron, color test for, use of thioglycolic acid, more delicate than thiocyanate test, A (10) 469.
compounds as coloring agents for glass; variety of colors obtainable; glass batches, A (4) 135.

sesquioxide of, study of transformations observed during calcination of, A (12) 618.
and steel metallurgy, A (6) 239.
and steel in 1926, A (6) 213.
titanic acid, process for recovery of, and magnesia from titaniferous ores, P (5) 194.
transformations of, in nature; effect of p_H on valence of iron in solutions under atmospheric conditions, A (10) 477.
Italian brick work, North, study of brick detail in Lombard plain from Middle Ages through Early Renaissance, A (8) 318.
Italian refractory clays, properties, of, A (9) 383.
Italy, ceramic schools in, A (9) 367.
leucite industry in, A (11) 539.
Ivory bodies use more domestic clay, A (6) 229.
Ivory-toned ceramic products, materials used, composition of glaze and body, A (9) 368.

Jade, history of, physical, chemical properties of jadeite and nephelite, given and compared, A (1) 4.
Japan, glass and ceramics in, development during last few years, A (9) 412.
industrial chemistry in, research institution, and scientific societies, A (10) 469.
manufacture of soda ash in; daily production, purity, A (10) 469.
report of National Council of, on chemical analysis of silicates, A (1) 40.
spraying method of applying; type of equipment used, A (7) 297.
Japanese acid clay, absorptive and decolorizing powers; composition of; presence of rare earths, A (10) 467.
Japanese Clays, B (11) 543.
Jaw or breaker plate for stone crushers, etc., P (12) 596.
Jena glass industry, A (5) 171.
Jena glass 16^{III}, thermal expansion of, at low temperatures, A (1) 11.
Joliet quadrangle, geology and mineral resources of A (6) 238.
Journal of the Institute of Metals, Vol. 37, B (11) 549.

Kaiser Wilhelm Institute for Silicate Research, aims of for present and future, A (6) 249.
Kaolin, action of heat on surface properties of, A (5) 193.
characteristics of porcelain, A (4) 152.
and clays, relation between, A (12) 619.
constitution of, A (6) 241.
data on purchasing properties of, required, A (10) 452.
deposit of, near Sabie, S. Africa, A (6) 238.
deposits of Silesia, the, A (6) 239.
effects of some electrolytes on, and probable relations to soil, A (12) 622.
formation; problem of; bibliography included, A (12) 615.
and its thermal changes, A (6) 240.
methods of purifying materials containing kaolin; elutriation, peptizing agents, electrolytes, electroösmosis, A (7) 292.
Pacific Northwest, laboratory apparatus for refining; methods of operation, results obtained, A (4) 153.
the phases developed in firing, A (11) 540.
and refractory clays, concerning new method of washing, A (11) 540.
-titanium-oxide system, melting points of mixtures within, A (5) 177.
from Union of S. Africa, A (8) 359.
works, description of Australian, A (12) 614.
Kaolinite, behavior of, at high temperature, A (10) 470.
changes in, at high temperatures, A (12) 618.
changes taking place when heated, A (11) 541.
Kaolins and clays, relation between, A (12) 615.
Kemp, James Furman, obituary, A (3) 115.
Kiln, brick; kiln chamber; tunnel beneath chamber and extending transverse, flash wall in tunnel, P (1) 33.
thermal calculations involved in designing, A (7) 298.
Kiln car, metal cover plate member for body; metallic work supporting platform member; rolling bodies between members, P (11) 538.
metallic work supporting platform; car body nonuniform; by adjustment of members relative to car body and platform weight of platform and load is properly distributed. P (11) 537.
supporting base with transverse flue passage; with ware-supporting superstructure, P (2) 606.
Kiln, cement rotary, improvement in; water-jacketting and several transverse water tubes, P (11) 501.
Kiln construction, A (5) 185.
Kiln, downdraft, face brick, 30-ft. round, heat-balance study of, A (12) 601.
Dressler; direct-fire biscuit kiln and muffle glost kiln for firing tile, A (7) 298.
and drier, continuous; means for utilizing products of combustion from tunnel kiln in heating drying chamber, P (7) 300.
dry; treating tank combined; closed liquid-holding tank, means in tank for heating either liquid or air, P (2) 607.
efficiencies calculated using specific-heat data recently obtained, A (12) 615.
efficiency, calculation of thermal, heat-balance study of Hoffman continuous coal-fired kiln, A (12) 601.
an efficient round, downdraft, for firing refractories, A (6) 234.
electric tunnel, A (5) 198.
electric, used in firing decorative glass ware, A (7) 256.
electrically heated china decorating, of interesting design, A (11) 537.
electrically heated tunnel, for firing ceramic ware, A (9) 398.
for firing of cement, calcining, P (6) 237.
for glass melting, etc., P (6) 220.
Hall China Co. adds another, to recently acquired plant, A (11) 534.
Hoffman, A (6) 233.
Holcroft, description of, use of automatic temperature control at plant of Mount Clemens Pottery Co., A (7) 298.
lime, and gas producer combined, A (7) 259.
lime, scientifically controlled, A (6) 209.
McDougal, used for glazing tile, A (1) 32.
Mendhein 16-chamber, described, A (7) 284.
modern lime, description of, A (5) 167.
modern rotary, for calcination of gypsum, A (12) 561.
new continuous decorating, in operation, A (5) 186.
oil-fired; primary combustion chamber, an extension thereto; a secondary combustion chamber with adjustable air port, P (9) 398.
and other heat-treatment furnace, P (10) 463.
periodic, heat losses in, A (6) 234.
plurality of chambers; radiating combustion means in each chamber, and means of conducting air from one chamber to the other, P (3) 114.
pottery; floor made of thick refractory disk which revolves in any direction and moves up and down, P (11) 538.
reciprocating car, P (10) 465.
restricted rotary cement, to form sintering zone and condensing chamber, P (9) 373.
roofing-tile; combustion chamber constructed in tunnel shape with many flame openings in arch, P (11) 538.
Kiln, rotary, with air preheater; an extension is provided beyond sintering zone which acts as air preheater and product cooler, P (9) 372.
for burning cement, magnesite, lime, etc., P (4)155.
with heat exchanger placed in preheating zone of, P (9) 373.
study of heat economy of, A (10) 460.
Kiln, round downdraft type of, directions for firing, A (6) 222.
scove, firing hollow tile in, A (10) 459.
shaft, method of charging, P (11) 532.
single-fired box, P (7) 300.

truck; floor of refractory blocks complimentary and co-acting to prevent outward movement of blocks, P (10) 464.
Kiln tunnel, air supply for fuel burners heated in flues in wall of cooling-zone, P (10) 466.
duplex firing chamber with 2 separate firing zones; closed heating chamber extending logitudinally through each heating zone, P (3) 114.
an electric, A (5) 185.
glass tank of; advantages, A (6) 213.
a highly efficient; description of recently constructed tunnel kiln for burning brick, A (3) 112.
improvement in, by construction of inner and outer walls to form arcs, P (11) 538.
method of operating, P (12) 607.
new application of, A (6) 233.
possibilities of, for sewer pipe, A (10) 458.
refinements in control of; improved efficiency, A (5) 186.
a successful application of powdered coal as a, fuel-firing hard common brick, A (6) 236.
type of tunnel car, floor for car and method of arranging ware on cars, P (9) 399.
Kiln turnover, fuel savings and, A (4) 154.
Kiln, vertical lime, gas inlets, inclined downward to make flame reach center and prevent overfiring along kiln sides, P (11) 500.
Kilns, battery of; means for circulating products of combustion; modifying temperature of products of combustion while in circulation, P (4) 155.
brick or pottery, multichamber kiln, P (2) 73.
brick, their development in 50 years, A (6) 233.
comparison of expenses of operating 3 types of, A (7) 297.
continuous, review of experimental studies on ceramic, carried out at Syndicate Laboratory during 1925 on 25 kilns, A (1) 32.
ceramic, heat-balance of Hoffman continuous coal-fired; temperature-gradient curves, etc.; thermal efficiency, A (12) 601.
ceramic, insulation of, methods of heat transmission, properties of insulation materials, data on fuel savings, properties of Sil-O-cel, A (3) 112.
Kilns, downdraft, combustion gases drawn through perforated floor into central flue, P (5) 187.
for manufacture of bricks or pipes, P (2) 73.
periodic, notes on firing, A (8) 356.
waste heat as air for combustion in, A (8) 357.
Kilns, electric, at Gustavsberg works, A (10) 460.
firing of stone ware, with illuminating gas, A (11) 537.
gas-fired, designing of, A (9) 398.
gas-fired, designing of, amount of gas required, A (10) 459.
heat requirements of, in firing of clay, A (7) 298.
insulation of, methods and materials used, A (10) 458.
modern dolomite, development of, A (11) 537.
muffle; "endless" series of separate, continuous muffle kilns connected by flues arranged polygonally around central space, P (2) 73.
oil or gas-fired, heat economy effected with kilns arranged in tandem or series, P (2) 74.
and other heat treatment furnaces, P (2) 73.
pottery, experiments made which may cut cost of firing, A (8) 362.
recuperation for ceramic, application and advantages, A (9) 398.
renovating inside of, by spraying with lean refactory mixture, A (3) 113.
Kilns, rotary, in manufacture of plaster of Paris; comparison of economy of calcining kettles and, A (12) 560.
preparing diaspor and fireclay refractories for, A (12) 589.
production of supercement in, A (12) 565.
Kilns round porcelain glost, efficiency of, A (8) 352.
series of pottery kilns connected by ducts leading from center of any kiln to circumference, under fire doors, of next kiln in cyclic order, P (12) 610.
Kilns, tunnel for baking pottery, P (2) 73.
construction and operation of, A (5) 186.
Dressler, for pottery, A (8) 352.
for firing fire brick, A (1) 33.
holder and brace for rails and sand seals of tunnel kilns, P (2) 73.
Taylor, Smith & Taylor Co. awards contracts for new plant, A (6) 230.
Kilns, types of, A (5) 195.
various industrial, temperatures attained in, A (6) 236.
vaults for baking ovens or, P (4) 155.
Kinonglass, nonsplintering safety glass, A (7) 268.
Kitchenware plant, routine production through, A (9) 412.
Klinkers: Their Employment and Production, B (2) 63.
Knowles, Edwin M., China Co. to build $500,000 extension at Newell, A (6) 230.
Kochite, new mineral, $2Al_2O_3 \cdot 3SiO_2 \cdot 5H_2O$, A (10) 478.
Korean ceramics, examples of various periods on exhibition at Met. Mus. Art, A (10) 420.
Pottery, Eumorfopoulos Collection Described, B (1) 4.
Kraf-Tex brick, described, A (8) 343.
Kutahia faience, description of, A (9) 367.

Labor statistics, A (9) 411.
Laboratory apparatus, advances made in manufacture of, A (7) 310.
Testing and Research, of the U.S., B (10) 486.
value of, to a corporation, discussed, A (4) 159.
Ladle bowls, liners for steel, description of, A (2) 66.
Lalique's glass ware, A (2) 49.
Laminations, causes of, effects of using, 1, 2, 3, and 4 bladed augers, A (10) 454.
elimination of, in clay bars, A (6) 221.
foe of fire brick, A (7) 287.
a scientific study of, A (10) 453.
Lamp incandescent, history; glass machinery used in making, A (11) 507.
making of described, A (6) 215.
method of tipless construction of bulbs for, A (12) 570.
unit machine for manufacture of, A (12) 570.
Lamp, internal frosted; method of manufacture; reagents used, A (8) 334.
Lamp working in Thuringian woodlands, contribution to history of, A (7) 274.
Lamps, frosted electric incandescent, formed of milky glass or plain glass with thin external opal coating; etched or frosted internally, P (12) 584.
Landshut in Bayern, development of state ceramic technical school at, A (9) 410.
Law of Chemical Patents, B (9) 414.
Lazurite, structure of, A (9) 406.
Lead poisoning, A (5) 200, B (9) 414.
Deaths from, B (7) 295.
deaths in pottery trade in England, A (3) 110.
in Mining of Lead in Utah, B (10) 484.
Lead sulphide, formation of films of, on glass surfaces, A (12) 573.
Leadless enamels, 2-coat process, formulas given, P (1) 10.
Leer, Amco unit, development of, A (7) 270.
bottle, and conveyer of British design, A (2) 54.
construction; apparatus for intermittently rolling sheets of glass, P (10) 439.
construction of a fireless, P (12) 583.
continuous, P (10) 438.
conveyer of woven wire fabric for transporting articles of glass ware, P (12) 578.
conveyers, heat losses in, A (9) 375.
portable unit, description of, A (7) 272.
small compact; efficient annealing unit, A (7) 267.
unit, development of, A (10) 433.
Leers, annealing; current of gaseous medium maintained to counteract tendency for atmospheric air to enter at one end and flow along tunnel, P (11) 513
carrying-in device for, P (5) 173.
control apparatus for, P (8) 340.
Leipzig, British exhibit at, A (12) 625.
Lens body, method of manufacturing, P (11) 515.

general utility reading, for burettes and thermometers, A (6) 247.
ophthalmic, P (12) 578.
process of manufacturing fluid-holding, P (11) 515.
Lenses, fused multifocal, process for making, P (12) 578.
Leucite, alkaline treatment of, for potash, A (10) 470.
industry in Italy, A (11) 539.
and other sodium and potassium silicates; process for the treatment of, P (5) 194.
Leukonin, use of as opacifier for enamels, A (8) 327.
Libby Glass Plant, description of, A (5) 195.
Libby-Owens Sheet Glass Co. to construct new unit at Toledo, A (11) 507.
Light, dispersion of, by glasses and measurement, A (6) 216.
explanation of phenomenon, A (1) 36.
transmission of rough-cast glasses, the measurement of, A (7) 276.
transmission by window-glass, factors dependent on, A (4) 136.
velocity of, speculation on change of, A (12) 618.
Lignite, Bohemian, heating value of, A (9) 398.
Lime-alumina-silica system, melting points of mixtures within, A (5) 177.
Lime-alumina system, melting points of mixtures within, A (5) 177.
Lime blocks, stucco, process of heating lime to make, P (8) 326.
Lime burning, rotary kilns vs. shaft kilns for, A (7) 258.
science and engineering in, applications of, A (11) 497.
science and engineering in study of, A (9) 370.
in tunnel kilns, A (10) 422.
Lime calcining furnace, a modern, A (6) 206.
cause of contamination of, recarbonization, in kilns, A (10) 422.
in cement and materials containing blast-furnace slag, rapid determination of, A (12) 565.
in cements and cement raw materials, rapid determination of, A (12) 565.
in chemical industry, needs and future of, A (11) 497.
contamination of, by vapors when temperature falls, A (11) 497.
determination of, in soda-lime glass, methods used at Bureau of Standards; those recommended for routine work, A (12) 615.
dolomitic, history of so-called dolomite cement and influence of burning temperature on character of, A (12) 565.
effect of steam in; kiln, X-ray study of, A (4) 132.
excess on Portland cement, question of, A (12) 565.
free, in hydraulic cement, determination of, A (6) 207.
free, improbabilities of occurrence in properly burned Portland cement, A (12) 565.
for glass industry, A (9) 376.
glass house, manufacture of, A (10) 432.
hydrate, method of producing improved, having a high plasticity, P (9) 371.
hydrated, method for determination, soundness of, A (9) 369.
hydrates, plastic, by use of chemical reagents in slaking water, A (12) 561.
hydration of, effect of particle size on, A (7) 258.
Lime industry, automatic shaft kiln in, A (10) 422.
present progress and future tendencies in, mining, kilns, plasticity, A (7) 257.
problems of, A (7) 257.
quarry problems in, A (9) 413.
Lime-iron oxide system, melting points of mixtures within, A (5) 177.
Lime kilns, development of, A (8) 325.
and gas producer combined, A (7) 259.
improved shaft, air before admission to kiln preheated in flues in kiln wall, P (7) 263.
lining of, chemical composition of, fire resistance of, softening under compressive load, resistance to lime, A (10) 449.
modern, A (8) 325.
scientifically controlled, A (6) 209.
steam in brief analysis of function of, A (9) 370.
Lime in limestone, slag, raw cement mix, clinker, and cement, rapid determination of, A (12) 562.
manufacture, by crushing limestone to 40-mesh and heating to about 850°C in presence of oxidizing agent as oxygen or steam, P (6) 211.
manufacture, progress in scientific control of, A (5) 166.
papers on, at the Richmond meeting of the Amer. Chem. Soc., list of papers, A (7) 260.
for plaster, method of preparing, P (11) 500.
plaster, rate of carbonation of, A (8) 325.
products, quick setting, by addition of carbonates, of metal which readily hydrolyzes, P (1) 8.
products, quick setting hydrated lime and a soluble sulphate of metal, atomic weight of metal between 52 and 59, P (1) 8.
quick setting and process of making same, P (1) 8.
rate of solution of, effect of calcination temperature on, A (10) 424.
and silica, rapid determination of, in raw cement mixture, A (6) 208.
Lime-silica system, immiscibility in, A (4) 157.
melting points of mixtures within, A (5) 177.
Lime in U. S. glass, industry, A (10) 426.
works, machinery for, A (10) 422.
X-ray study of, having different plasticities, A (7) 258.
Limes, finishing, effects of various conditions of calcination and hydration on plastic properties of hydrated, A (5) 166.
finishing, plasticity of, effect of salts on, A (7) 257.
having different plasticities, X-ray study of, A (11) 499.
Limestone, calcination of, in electric furnace, P (6) 212.
calcination in vertical gas-fired kilns, P (11) 500.
calcination, X-ray study of, A (9) 370, A (10) 421.
chemical analysis of A.S.T.M. method, A (1) 36.
decomposition of, effect of steam on, A (7) 258.
decomposition, study of the effect of steam in, A (6) 206.
deposits, source and origin of, A (5) 189.
metallurgical requirements of, A (10) 422, A (9) 370.
for sewage filter beds; causes of disintegration, desirable properties, and methods of testing, A (11) 545.
small, calcining of, use of sintering machine for, described, A (1) 7.
Limestones of Ill., economic geology of, A (7) 301.
Lining block for sewers, etc., of vitrified earthen material, P (11) 520.
Lining, new furnace, A (6) 225.
Linings for flues, various types investigated, properties desired, recommendations made, A (11) 516.
rubber, ball mills, A (5) 184.
Liquid fuels afford steady temperatures, A (6) 235.
Liquids, some thermal conductivity data for, A (6) 244.
viscous, experimental study of forced convective cooling in, A (6) 245.
Literature, technical, review of new books, A (1) 40.
Litharge-glycerine cement, setting of, explained, A (1) 6.
Lithia, Canadian, A (7) 301.
Lithium hydroxide aqueous solution, viscosity, and surface tension of, A (10) 479.
Load test for silica brick, investigation of, A (5) 179.
Loam deposits, valuation of, A (10) 468.
Loss on ignition, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work; accuracy, A (12) 615.
Losses, carbon, in form of coke particles and soot, A (5) 185.
Low-temperature process, laboratory method for producing low temperatures by use of silica gel, etc., A (12) 627.
Lubbers window-glass machine, service requirements for special clay shapes for, A (12) 586.
Lubricants for ground-glass joints, A (10) 455.

Macbeth Evans Glass Co., historical sketch of A (9) 377.
Machine for finishing pressed-glass articles, a fire-finishing and polishing machine, P (8) 338.
Machine for forming glass articles; rotating mold carriage, and compound suction-gathering molds, each unit disposed in different planes, P (10) 437.
circulation of glass past gathering area; machine with plurality of heads and suction-gathering molds; cutters on heads coöperating with molds, P (11) 511.
Machine industry, methods and processes in, A (8) 354.
new Brit. 15-arm, makes variety of bottles, A (11) 508.
new Brit. bottle blowing, A (11) 508.
for sifting potters' slip, powdered substances, etc., P (12) 600.
tile-fettling, P (4) 153.
Machinery displaces labor in glass industry, A (9) 377.
Machines, measurement of mechanical power absorbed by driven, A (3) 121.
Macrostructure of refractories, corrosion and erosion phenomena and their bearing on, A (6) 214.
Magnesia-alumina-silica system, melting points of mixtures within, A (5) 177.
Magnesia cement, water-proof, compounding boric acid or soluble borate and resin or resinic acid to mixture of magnesia and magnesium carbonate, P (11) 502.
determination of, in soda-lime glass, methods used at Bureau of Standards and recommended for routine work A (12) 615.
fired; magnesium oxide, caustic magnesia, magnesia usta, specifications for, A (3) 117.
Magnesia-lime system, melting points of mixtures of within, A (5) 177.
Magnesia oxide-silica system, immiscibility in, A (4) 157.
Magnesia, presence of, effect on plasticity of finishing limes studied, A (5) 166.
Magnesia-silica system, immiscibility in, A (4) 157.
melting points of mixtures within, A (5) 177.
Magnesia from titaniferous ores, process for recovering titanic acid iron, P (5) 194.
Magnesite articles, molded, fibrous materials, and sorel cement heated together at a temperature of 200° F until hardening is complete, P (7) 263.
Magnesite, burnt, production, properties; experimental study of, A (4) 150.
composition, refractory, P (6) 227.
description of deposits at Kunwarara, A (12) 613.
industry, position of, A (8) 348.
refractory, forms, P (5) 183.
treatment and uses of, A (12) 613.
used as open-hearth bottom, A (5) 177.
Magnesium chromates, process for the preparation of, P (9) 408.
Magnesium di-zincide, crystal structure of, A (7) 309.
Magnesium oxide cements, production, properties, uses, A (8) 323.
electric furnace lining, A (5) 179.
thermal expansion of, A (3) 105.
Magnesium-oxychloride cement, aqueous vapor pressure of, and state of water in it, A (7) 262.
study of, with X-rays, A (7) 262.
Magnetic separation, unusual method of, A (9) 394, A (11) 536.
Magneting machines for pottery and glass raw materials, A (10) 456.
Maiolica, Renaissance, description of collection at the Met. Mus. Art, A (12) 557.
princely gift of, examples on exhibition at Met. Mus. Art, A (10) 420.
Malleable iron, continuous annealing of, A (3) 112.
Management achievement, Streator, Ill., Brick Co. plant, a marvel in, A (11) 544.
responsibilities of, to be successful, A (11) 544.
Managers of brick plants, qualifications desired, A (10) 443.
Manchester glass works, a, described, A (2) 52.
Manganese dioxide, effect of, on physical properties of ground-coat enamels, A (7) 265.
reactivity of, in solid state, A (9) 406.
Manganese and ferro-manganese, sources, production, A (8) 360.
in India, analysis of ore, production of, condition of market, A (1) 34.
Manganese oxide, determination of, in soda-lime glass, methods used at Bureau of Standards and recommended for routine work, A (12) 615.
Manitoba, brick and tile industry in, characteristics of clays, materials used, products manufacture, markets, A (2) 62.
clays of, A (6) 239.
Mantle recuperator for industrial furnaces described and compared with other types of recuperators, A (12) 604.
Manufacture of grinding wheels, development, present method, finishing and testing, grades, control composition, A (1) 2.
Manufacturing, factors other than, that enter into the cost of clay products, A (6) 250.
prosperity, A (2) 86.
Marble, imitation, method of producing, P (10) 427.
tiles, slabs, and similar material for use for decorative purposes, method of producing, P (10) 428.
Marquardt's body, data on physical properties of, A (2) 76.
Martinit, highly refractory material, A (5) 180.
Mask, new type of hose, for protection against metallurgic dusts and fumes, A (5) 200.
Masonry, cement, U. S. Govt. Master Specifications for, A (7) 259.
Mat glazes in some low-temperature glaze compositions containing uranium, lead, sodium, and boron, A (11) 539.
Material, building, process of manufacturing, mixing ammonium borate and plaster of Paris and quick-lime mixture obtained by pouring sulphuric acid on quick-lime with coal-cinder or grog, P (11) 501.
Material-handling equipment, all types described and illustrated, A (2) 70.
Materials, ceramic raw, in West, A (5) 199.
method and apparatus for grading solid, P (6) 233.
testing raw, for cement-making properties, A (5) 167.
Mathematics, Higher, for Students of Engineering and Science, B (2) 85.
Matting or etching inside of bulb for incandescent lamp or similar glass ware, apparatus for, P (11) 516.
Measurement of high temperatures in the carbon resistance furnace, A (11) 541.
Mechanical analysis, accuracy of, errors involved in sieve analysis, A (9) 404.
Mechanical power absorbed by driven machines, measurement of, A (3) 121.
Mechanical shock, and chemical action, glass capable of withstanding abrupt changes of temperature, A (5) 172.
Mechanical stokers for gas producers, A (7) 299.
Meeting, Detroit, of AMERICAN CERAMIC SOCIETY, abstracts of papers presented before the Glass, Terra Cotta, Heavy Clay Products, Enamel, and Whiteware Divisions, A (5) 195, 197, 198, 199.
9th annual, of Common Brick Mfgrs. Assn., A (5) 195.
Meiere, Hildreth, mural painter, her work, A (10) 419.
Meissen ware and its modelers, history of, A (12) 557.
Mello-tones brick, described, A (8) 343.
Melting, electric, of glass, A (5) 171.
fractional, of refractory materials, A (5) 178.
Melting points, simplified method for determining, A (10) 450.
Meltoxyn for acid-resisting enamels, A (8) 327.
Melts, trial, and furnaces in glass works; diagram, A (8) 332.
Mendheim kiln, 16-chamber, described, A (7) 284.
Mercier-Bryan-Larkins Brick Co. plant described, A (5) 175.

Mercury volumeter, a new, principle of operation, construction, manipulation, and calibration; advantages and disadvantages, A (12) 595.
Metal racks more economical in enamel industry, A (8) 353.
Metallography of Heat Treatment of Iron and Steel, B (1) 9.
of Steel and Cast Iron, B (1) 9.
Metallurgical development, history of, A (1) 9.
Metallurgy, ferrous, and corrosion, A (6) 213.
iron and steel, A (6) 239.
Metals from glass melts, preparations of, A (7) 275.
under Repeated Stress, Endurance of, B (9) 374.
Meter, laboratory flow, all in glass, A (6) 247.
Methods, statistical, in ceramic research, A (5) 194.
Metropolitan Museum of Art, recent accessions in classical department of, A (3) 92.
Metropolitan Paving Brick Co., vitrified floor system for trickling filters perfected by, A (5) 175.
Mexican as expert craftsman, A (7) 253.
Miami disaster as viewed by an engineer, A (1) 18.
Mica and its uses, A (11) 538.
group, further studies in, muscovite and lepidolite systems; optical constants of members, A (9) 399.
mineralogy of and uses of, A (12) 612.
mining and utilization of, A (4) 133.
wastes, new process for recovery of valuable, A (8) 361.
Micas, hydrolysis of, use of acid or separation of micas and kaolinites, A (12) 614.
Michell ball viscosimeter, mathematical theory of, construction and operation, A (9) 394.
Microscope, high temperature, and significance for glass technologic research, A (6) 230.
Microscopic analysis, quantitative, 5 methods described, possible accuracy, A (9) 402.
Microscopic investigation of α and β inversions of natural cristobalite, A (10) 472.
Microstructure of ceramic products, factors influencing, A (12) 624.
of earthen ware, A (7) 291.
of earthen ware; study of development of mullite crystals at contact of body and glaze, and effect of heat treatment on size of crystals, A (5) 184.
Middle Age methods for application of cartoons by use of colored glasses, A (7) 268.
Milling and flotation, A (6) 239.
Mineral development of Georgia, A (5) 188.
Mineral Fields, Location of, B (2) 75.
Mineral pigments, A (6) 238.
Mineral production of U. S. shows increase in 1926, A (12) 626.
Mineral resources of Calhoun County, Ill., preliminary report on the economic, A (6) 237.
and geology of Carbondale quadrangle, A (6) 237.
of Equality-Shawneetown area, A (6) 237.
of Joliet quadrangle, A (6) 238.
Mineralogy of aluminous cement, A (6) 207.
of several calcium aluminates occurring in aluminum-cement clinker, A (7) 262.
Soil, B (11) 543.
Minerals, lithium, occurrence in Canada, A (5) 189.
method of purification, particularly feldspar and silica, P (10) 481.
structural formulas for, A (10) 471.
treating, process of, and apparatus for, P (2) 71.
treatment of earthy, P (6) 250.
Mine methods and clay pit, complete survey of entire field of clay mining, A (9) 409.
Mining clay, a system of underground clay mining which recovers the greatest possible amount of clay, A (9) 410.
Mining of minerals, method of, and means for supporting roof strata during, A (8) 364.
shale for sewer pipe, description of shale veins at Taylor, Washington, A (9) 409.
system of; initially driving a plurality of parallel and intersecting cross-entries to form rectangular blocks and removing the material from blocks, P (9) 414.
underground clay, items requiring consideration, 2 systems considered, A (12) 624.
Mirror glass, coating of, with silver, A (7) 267.
and mirrors, production of, A (8) 329.
Mirror industry of Fürth, quicksilver application in, A (7) 268.
Mirror manufacture, technique of, A (8) 328.
Mirror surfaces, preparation of, A (7) 267.
Mirrors, history and uses of, A (2) 54.
nonglare, scientific principles which control construction of, A (5) 170.
process for coloring, A (3) 100.
silvering of, cleaning of surface and processes; Brasher's, formaldehyde, Rochelle salts, cathodic amalgam methods, A (3) 100.
Missouri, ball clays of Butler Co., A (5) 188.
Modeled treatment of pottery; various patterns; formulas for colored and mat glazes, A (1) 3.
Modernization, magician of industry, A (9) 411.
Modulus of elasticity of various ceramic bodies, A (2) 76.
Modulus of rupture of dried clays as measure of plasticity, A (6) 240.
and elasticity of some gypsum mixes, effect of amount and type of filler, A (1) 6.
Moisture, air, in drying operations, A (5) 191.
determination by volatile solvent method, A (8) 360.
Molding with binders of glyptal glass, P (7) 296.
Molds for casting clay bodies, etc.; method of molding, P (7) 297.
economic life of, A (6) 227.
glass, method of cooling, P (9) 380.
gypsum plaster, effect of sodium carbonate and water-glass solutions on, A (9) 369.
parison, note on design of, A (4) 149.
plaster, care of; behavior of gypsum plaster; requirements of ceramic trade, A (7) 259.
plaster of Paris, re-use of; relation between particle size and tensile strength; effect of addition of Al_2O_3, A (9) 369.
pottery, means for locking parts of molds together, P (10) 457.
with key-holed slots in lower part to lock the 2 parts together, P (10) 457.
spring latches to lock parts of assembled mold, P (10) 457.
Moler Fosalsil made of Denmark diatomaceous earth, A (12) 602.
Molineaux, Webb & Co., Ltd., glass makers for 100 years, A (5) 171.
Molten-material-spraying apparatus, P (11) 537.
Molybdenum trioxide, process for production of, P (8) 353.
Monticellite, structure of, A (9) 404.
Moonstone and soda-orthoclase, influence of temperature on path difference and schillerization in, A (10) 478.
Morgan recuperator for industrial furnaces; compared with other types of recuperators, A (12) 604.
Mortar, adhesion of, to sand-lime brick, A (6) 206.
and cement, influence of moist storage during early hardening on tensile strength of, A (12) 566.
flooring; magnesia cement, powdered pine bark rich in resin; milk product, P (11) 500.
joints, strength tests and, A (11) 499.
Mortars, cement, efflorescence and capillary fissures in, A (6) 222.
refractory, A (5) 182.
Mosaic floor panels, A (9) 367.
Mosaic slabs, preparation of, A (10) 421.
Mother-of-pearl materials, artificial, production of, A (8) 362.
Motion pictures at regular time-intervals; automatic device for taking, A (7) 302.
Motors, selection and protection of, A (7) 313.
Moulage et Fusion: Progres de la Fonderie, B (3) 96.
Mt. Clemens Pottery, plant of, description of, A (5) 195.
Muffle furnace, with electrical resistor, design of, P (10) 463.
ridges on bottom walls arranged to support firing racks and depressions to receive charging forks, P (1) 10.
Mullite blocks, the manufacture of, in Vitrefrax factory, A (4) 148.

Mullite brick, results of tests of, compared with clay block, A (4) 149.
thermal expansion of, over interval 25–1400° C, A (10) 449.
Mullite content of some American tank blocks, hydrofluoric-acid method, A (1) 10.
Mullite crystals formed in earthenware, A (5) 184.
Mullite, determination in porcelain bodies, A (3)109.
in earthen ware, A (7) 291.
or flux block, should glass tank blocks be, discussed, A (4) 148.
in porcelain, microstructure, A (9) 392.
Mullite refractories, notes on, A (9) 387.
properties of, A (2) 64.
Mullite and sillimanite, note on the X-ray patterns of, A (4) 149.
X-ray patterns of, differences between patterns of minerals, A (4) 136.
X-ray patterns of, mullite developed as low as 1200°C, A (6) 223.
Mullite tank block, development of, discussed, A (5) 180.
produced in electric furnace by Corning Glass Co., A (12) 589.
Mullite, X-ray examination of, A (7) 303.
Museums and galleries, Brit. Royal Commission of, A (12) 559.
Mylius' method of determining soluble alkali in ground glass, A (7) 269.

Naples, ceramic museum at, description of collection of porcelain, A (10) 421.
National Council of Ceramic Industries, A (12) 625.
ceramic men discuss the, A (12) 626.
National Glass Distributors Assn. meeting, A (6) 249.
National Lime Assn. to reorganize as federation of group organizations, A (8) 324.
National Paving Brick Mfgrs. Assn., 21st annual convention, A (3) 122.
National Physical Lab., work of, thermal conductivity of vitreous silica, colored glasses, resistivity of porcelain, tests on glass volumetric apparatus, A (9) 411.
Near East pottery, description of, A (3) 91.
Nephelite, physical, chemical, and optical properties given; compared with jadeite, A (1) 4.
structure of, A (9) 406.
in surface deposits of glass-furnace regenerators, A (1) 10.
New Jersey Clay Workers Assn., report of meeting, June, 1927, A (9) 412.
tariff and foreign competition, principal topics of discussion at Summer Meeting of the, A (11) 545.
New South Wales, clays of, origin, distribution, industrial uses, A (2) 74.
New York brick market, condition of, A (10) 441.
New Zealand Dominion Mining Conference, 1926, A (3) 115.
Nickel oxide from Cobalt Ont., A (7) 301.
Nickel oxide-silica system, immiscibility in, A (4) 157.
Nigeria, brick, tile and pottery clays of, A (9) 400
clays from, results of tests carried out on, by Imperial Institute, A (6) 239.
Nitrate law, Chilean, A (11) 539.
Nitrogen as catalyst in determination of sulphur in coal by bomb-washing method, A (11) 540.
Nomenclature for refractories covering properties and characteristics of raw and finished materials, A (11) 523.
North Carolina feldspar, production of, A (2) 74.
new china clay plant in, A (2) 74.
pyrophyllite deposits, A (5) 188.
pyrophyllite developments, A (11) 538.
North Staffordshire Chamber of Commerce, 2 addresses on ceramic education, A (9) 411.
Noselite, structure of, A (9) 406.
Nova Scotia, description of ceramic plants of, A (7) 301.

Ohio Ceramic Industries Assn. adopts active program at reorganization meeting, A (2) 86, A (2) 87.
titles of papers presented at meeting, May, 1927, A (9) 412, A (8) 342.
Ohio clay men study manufacture methods of 145 clay plants, A (3) 122.
Ohio, need of a school of ceramic design in, A (7) 255.
Ohio State Univ. some whiteware bodies developed at the, including statuary, electrical, hotel, and chemical porcelain, formulas for bodies and glazes given, A (5) 184.
Oil burner air-receiving chamber; pair of air-preheating chambers; rotary impeller for vaporizing oil, distributor head; passage of preheated air from one chamber to facilitate vaporizing of oil, from other to admix oil vapor with air, P (12) 597.
means for spraying oil, P (12) 608.
plate; flange about the exterior; central flanged opening; burner member mounted thereon, P (12) 609.
Oil burning, systems of; possible application to the potteries, A (9) 396.
Oil firing, systems of, described and compared, A (3) 113.
Oil and fluid flow and heat transfer in pipes, descriptive bibliography on, A (9) 412.
Oil, fuel, in enamel and pottery industry, A (6) 235.
for steam boilers, A (2) 87.
Oil-gas, method of manufacturing, P (12) 608.
Oilstone, natural white, method of manufacturing a substitute for, P (11) 491.
Old Blue Staffordshire in America, A (6) 205.
Olivine, structure of, A (9) 404.
Onondaga Pottery Co., descriptions of plant and methods used, A (10) 452.
Ontario, clay products in, in 1926, A (9) 400.
Opacity phenomena in enamel frits, microscopic investigation of, A (7) 265.
Open-hearth furnaces, application of recuperators to, A (7) 289.
effect of design and construction on operation of; types of failure of refractories, A (3) 104.
Open-hearth practice, industrial survey of, A (5) 178.
Open-hearth process, acid and basic described, A (2) 66.
Operation, continuity of, A (10) 484.
Optical filter, red; fluorescent; absorbs ultra-violet rays, P (11) 515.
Optical glass, annealing of, determination of critical temperatures, A (1) 11.
progress in optics, A (6) 217.
on sensitiveness of, to spots, A (1) 13.
tarnishing of, method for determining weathering properties of, A (7) 277.
Ore elevators, means for feeding, P (3) 111.
Oregon, geology of eastern, A (12) 613.
Organization controlling production, A (9) 412.
Ornamental glasses, production of, by hand; possibility of machine methods, A (7) 256.
Osmometer for class work, described, A (1) 37.
Ostwald's color theory, basis for determination of tint of colored glazes, A (7) 255.
Oxides, refractory properties of commonly used, A (5) 177.
soda and boric, some effects of varying, in ground-coat enamels, A (6) 212.
Oxygen, influence of diffusion of, on the rate of combustion of solid carbon, A (11) 540.

Pacific Northwest manufacturers discuss sales arguments, A (11) 544.
Painting, glass, varieties of, A (7) 256.
Particle size distribution of typical feldspars and flints, A (6) 228.
method of measuring, based on Stokes' law on velocity of spherical bodies falling through liquid, A (4) 158.
recent work on the measurement and industrial importance of, A (12) 620.
of suspended material, centrifugal method for determination of distribution, A (4) 159.
in suspensions, direct determination of distribution curves of, A (6) 246.
Patent, design, defined, A (1) 40.
process and composition, defined, A (1) 40.
Patents, Chemical, Law of, B (9) 414.
and trademarks in Irish Free State, A (12) 626.

Paving blocks, mineral, artificial, and natural materials, requisite properties, A (1) 17.
Paving breakers, removing glass with, A (6) 215.
Pennsylvania, geologic survey of, work of field season of 1927, A (12) 612.
leader in ceramic production, A (6) 249.
Periodicals, Subject Index to, B (10) 480.
Permeability of cement, effect of, on durability of reinforced concrete tanks, A (12) 564.
of ceramic bodies, measurement of, A (4) 156.
Persian pottery, Eumorfopoulos Collection Described, B (1) 4.
Petrographer, ceramic, rôle of the, A (5) 199.
Petrography, ceramic, brief review of development of, A (5) 199.
ceramic, development of; fundamental importance of microstructure, A (12) 624.
Sedimentary, Supplement to, Introduction to, B (7) 302.
Petrology, Principles of, B (9) 400.
Pewabic Pottery, description of plant of, A (5) 195.
Phases developed in firing of kaolin, A (11) 540.
Philadelphia Museum of Art, use of terra cotta in, A (9) 391.
Philippine Islands, Geology and Mineral Resources of, B (12) 615.
P_H indicator, application of, in sugar industry, A (7) 306.
Phonolith in glass manufacture, analyses given, batch for machine-made glass should not contain more than 125% of sand content, A (4) 138.
Phosphate, manufacturing, by calcining process, A (1) 36.
Photoelastic phenomena, note on stress systems and principles underlying conditions of stress and strain as applied to glass, A (9) 375.
Photographic production of reliefs for glass and ceramic industries, process and formulas, A (7) 256.
Photometer, Pulfrich, A (6) 206.
Physical Chemistry, Outlines of, B (9) 408.
Physical properties of ceramic bodies, results of mechanical and thermal tests on various types of ceramic bodies summarized in table form, A (1) 38.
of ceramic bodies, specific gravity, porosity, pore space, coefficient of linear expansion, heat capacity, thermal conductivity, electrical resistivity, compressive strength, tensile strength, modulus of elasticity, torsional strength, hardness, cone fusion, A (2) 76.
Physical studies in lamp and valve manufacture, A (7) 273.
Physico-chemical Methods, B (9) 408.
Periodicity, B (9) 408.
phenomena in ceramics, A (3) 119.
research at high temperatures, methods of, A (1) 37.
Physics, application of, in glass industry, A (10) 435.
Elements of, B (12) 623.
Physics, Handbook of, B (9) 408.
Pickling of sheet iron and steel, theory of, for enameling purposes, A (2) 50.
Pigments, microphotography of, A (3) 117.
mineral, A (6) 238.
Pilsen anthracite, heating value of, A (9) 398.
Pipe, circular, determination of pressure distribution on, when tested in A.S.T.M. standard sand bearings, A (4) 145.
salt-glazed, stages in firing of, A (12) 586.
sewer, firing of, A (11) 518.
sewer, preparation of, A (11) 518.
Pittsburgh and glass industry, A (6) 215.
Plant arrangements in industry, example of, A (1) 40.
Plant, the Boston Brick Company, at Gonic, N. H., A (11) 517.
brickmaking; kiln, means for receiving cars carrying products to be fired; exterior tracks for cars when removed from kiln; a heat-collecting dome; means for conducting air heated by fired products from dome to point to be utilized, P (11) 520.
control; importance, A (9) 403.
control methods in ceramics, hydrogen-ion control, A (6) 239.
description of Finzer Brothers Brick Co., A (5) 175.
description of Mercier-Bryan-Larkins Brick Co., A (5) 175.
equipment and apparatus, new, A (10) 455.
half-million dollar, operated without clutches, A (5) 175.
improvement, reducing costs by, A (11) 517.
and machinery in 1926, progress in, A (6) 250.
management, sound, rules for, A (11) 546.
Plants, Chicago, descriptions of, visited by, Common Brick Mfgrs. Assn., A (4) 145.
European glimpses into some, A (6) 250.
industrial, heat-balance in, A (6) 249.
Plaster, acoustical, a new, formula, A (10) 421.
finish coat of, effect of certain materials on, A (5) 165.
gypsum molding, A.S.T.M. specifications for, A (1) 6.
physical behavior of, A (5) 199.
pottery, A.S.T.M. specifications for, A (1) 6.
material, process of manufacture of, by treating hot, freshly burnt crushed limestone with sulphuric acid, mixing thoroughly and crushing reaction mass to desired fineness, P (12) 566.
molds, concerning faulty and old; cause of deterioration, A (8) 323.
Plaster of Paris, burning of, in rotary kiln, A (11) 499.
comparison of economy of calcining kettles and rotary kilns in manufacture of, A (12) 560.
hardening of, and question of the existence of soluble anhydrite, A (11) 498.
studies of properties of, A (6) 209.
water-proof, made by mixing fusible substance as resin or sulphur with raw gypsum, P (11) 502.
Plaster, talks on, feature meeting of N. J. Clay Workers Assn., A (3) 95.
thermal analysis of, apparatus, curves showing temperature rise during setting, A (7) 260.
Plasters, wall, rate of drying of, A (5) 165.
Plastic blocks, mechanism for transferring from one conveyer to another, P (4) 146.
Plastic clay columns, apparatus for scarifying, P (8) 344.
Plastic composition, bitumen and substantially all of the decomposition of oil shale decomposed while in intimate contact with bitumen, P(12) 627.
coal-tar oil and substantially all of decomposition products of oil shale, P (12) 627.
containing colloidal silicates and metallic oxides, P (9) 371.
containing oxychlorides, P (9) 372.
Plastic material, having quick initial set, carbonated hydrated lime and soluble compound having sulphate radical, P (1) 8.
method of and apparatus for forming articles of clay treating apparatus composed of 2 pug mills connected in series, with special arrangement of augers, P (3) 112.
Plasticity of amorphous and crystalline solids, A (10) 472.
of clay, causes of; fineness, softness, and laminated structure of particles and roughness of surface determining factors, A (12) 622.
of clay, discussion of, A (10) 471.
of clays, causes of, work of H. Salmang, A (8) 360.
and elasticity, terms defined, A (9) 401.
of finishing limes, A (7) 257.
of finishing limes; effect of various conditions of calcination and hydration on plastic properties of hydrated limes, A (5) 166.
of limes, X-ray study of limes of different plasticities, A (7) 258.
measure of, methods critically examined; definition proposed; index defined; effect of sand and graphite noted, A (10) 469.
modulus of rupture of dried clays as measure of, A (6) 240.

notes on, equation for flow of plastic bodies, A (10) 472.
Plate glass manufacture, future trend in; pot method, continuous tank system, continuous or car system of grinding and polishing, A (7) 270.
polishing machines, theory and design of, A (10) 431.
pot-filling processes, development of, A (5) 170.
Plates, old Harvard Wedgwood, offered to public, A (12) 591.
Platinum, occurrence of in Brit. Columbia, A (12) 614.
Plunger, reinforced, for glass furnaces, P (12) 578.
Poisoning, Lead, B (9) 414.
Polar groups in dyes, effect of, on growth rates of crystals in solutions containing dyes and on crystal habit, A (11) 539.
Polarizing Microscope, B (2) 85.
Polishing machine, Sommer and Maca's automatic scratch, A (12) 571.
Polishing operation, nature of, A (4) 139.
Pollopas, synthetic glass, properties of, A (10) 484.
Polychrome figures, forming part of pediment designed by Paul Jenniwein for the Phila. Mus. of Art, A (8) 319.
Polymorphism of silicon dioxide and structure of tridymite, A (6) 246.
Poole pottery illustrated, A (2) 49.
Porcelain (all clay) sanitary ware bodies, development of, A (12) 592.
Porcelain bodies, determination of mullite in, A (3) 109.
effect of calcined cyanite in, discussion, A (7) 291.
effect of calcined cyanite in, moduli of rupture, coefficient of expansion, A (3) 109.
effect of various forms of silicic acid on, A (6) 229.
substitution of calcined ball clay for nonplastic in, A (3) 108.
Porcelain, Book of, B (8) 322.
cementing, with mix of 90% rubber, 2% litharge, 2% selenium oxide, 3–4% accelerator, and 2–3% of filler as zinc oxide or soot, P (11) 500.
Chinese, early republican decorations on, so-called Chinese Lowestoft, A (11) 492.
Chinese, has languished since the Republic, A (12) 558.
clay, deposits o in Japan, A (3) 115.
colors, investigation of, phosphate and titanate colors, A (8) 321.
constitution of, during firing, A (2) 69.
constitution, effect of repeated firings, microstructure, isolation of mullite, A (9) 392.
crucibles, P (6) 230.
data on physical properties of, A (2) 76.
discussion of bodies and glazes, A (10) 453.
electrical resistivity of, investigated by National Physical Lab., A (9) 411.
English, Wallace Elliot's collection of Bow and Lowestoft, A (10) 421.
exhibition at Selb, 1926, A (8) 352.
or faience, distinction pointed out, A (2) 69.
and glass laboratory care, the testing of, for arsenic, A (11) 542.
grinding quartz and flint in Dorr mills for manufacture of porcelain, A (12) 593.
hard, process for making and molding; subjection of ordinary finished porcelain to heat until plastic and molding under pressure, P (7) 296.
influence of glaze on some physical properties of, A (4) 140.
Porcelain insulators, aging phenomena of, A (1) 29.
electrical, absorption test for, apparatus described, A (9) 392.
importance of glaze, A (9) 392.
simplification of, A (10) 452.
Porcelain objects of art for the home made by the Josiah Spode factory, A (12) 556.
Porcelain and other ceramic products, electric furnace for firing, A (5) 186.
physical properties of; effect of time of firing on coefficent of expansion and amount of reaction between quartz, feldspar, and clay of porcelain bodies, A (7) 293.
physical properties of; study of fundamental properties of porcelain as affected by various raw materials and rates of heating and cooling, A (3) 109.
press, description of press method, A (8) 352.
process of forming a ceramic material containing crystals not subject to volumetric changes, other than those explained by thermal expansion, P (8) 353.
production and composition of, use of flux of aluminum fluosilicate, P (1) 31
spinning nozzles for artificial silk of guaranteed accuracy of .01 mm., A (9) 392.
structure of crystalline phases of, A (12) 593.
teeth, process of manufacturing, with pin made of alloy of nickel or other metals, P (11) 535.
textile, manufacture of, described, A (4) 152.
tooth body, P (12) 594.
wet process electrical, impact and static transverse strength of, A (4) 151.
Porcelain Works, Royal Copenhagen, survey of, A (7) 255.
Porcelains, the constitution of, mullite content determined, effect of repeated firing, presence of excess SiO_2 reduces solubility of mullite, A (3) 110.
and pottery used in tea ceremonies, form, color, and texture of, A (12) 535.
Porosimeters, gas expansion, several types described, A (2) 70.
Porosity, effect of, upon thermal conductivity, diffusibility, and heat capacity at high temperatures, A (5) 182.
measurements, studies of firing and vitrification of porcelain and white ware by means of, A (3) 110.
and permeability of porous bodies, A (7) 303.
of refractory products, simple apparatus for determination of, A (11) 528.
of stiff-mud refractory brick; effect of water content and pressure of repressing on, A (10) 447.
of various ceramic bodies, A (2) 76.
Porous bodies, studies in porosity and permeability characteristics of, A (7) 303.
Porous plate for purifying sewage, method of manufacturing, P (11) 516.
Portland blast-furnace cement, standard British specifications for, A (2) 49.
Portland cement, addition of silica material to, effect of, A (8) 325.
analytical chemistry and service in manufacture, study, and uses of, A (12) 563.
Association, German, work of kiln committee of, A (10) 423.
Australian standards for, A (11) 499.
Calaveras Cement Company's new wet-process plant, A (4) 132.
in Canada, production, high strength cements, A (8) 325.
chemical composition, effect of, on physical properties of, A (9) 371.
clinker; compound $8CaO \cdot 2SiO_2 \cdot Al_2O_3$ as "alite" of, A (5) 167.
clinker, specific heat of, A (5) 167.
and Concrete, Making and Testing of, B (4) 133.
constitution of, A (5) 167.
effect of calcination process of properties of, A (7) 261.
English standards for iron, A (11) 499.
expansion of neat in steam, determined by regular specification test, Le Chatelier tong's test; bars measured by special micrometer and by comparator, A (12) 559.
fineness of, and effect on rate of hydration, A (7) 262.
fineness of, and influence on rate of hydration, A (12) 565.
high-test, Belgian, data on A (10) 424.
improbabilities of occurrence of free lime in properly burned, A (12) 565.
improvement in method of making, with admixture of gypsum, P (5) 168.
International Standard Tables for, as of May 1927, B (11) 499.

lime mixes, strength variations of, A (9) 370, A (10) 425.
made from blast-furnace slag, English standards for, A (11) 498.
manufacture of, A (3) 94.
mortar or concrete, U. S. Govt. Master Specifications for integral waterproofing material, water-repellent type for use with, A (7) 259.
mortar, pigments of various compositions for coloring, A (11) 497.
petrographic study of mineral constituents of cement clinker, A (2) 49.
process of utilizing alunite or its waste as flux in manufacture of, P (11) 502.
question of lime excess in, A (12) 565.
report of special subcommittee on survey of tension tests of, for 1925, A (5) 165.
research, studies on systems lime-alumina-silica; lime-ferric oxide-silica; lime-iron oxide-silica. A (4) 131.
retarding set of by small admixtures of lead oxide, A (10) 426.
review of literature on effect of calcination temperature, period of calcination, and speed of cooling on hardening properties of cement clinker, A (6) 209.
revised specifications for, A (10) 421.
securing high early strength by use of admixture of calcium chloride, A (4) 132.
significance of iron to, A (10) 426.
silicates in, principal constituents of clinker, tricalcium silicate or dicalcium silicate, A (4) 132.
standard specifications and tests for, A (4) 131.
standard specifications and tests for, A.S.T.M. C9–26, A (1) 6.
standards for, A (8) 325.
U. S. Govt. Master Specifications for, A (9) 369.
water-proof plastic and composition and method of making the same, P (12) 566.
Portland cements, certain, and properties, hydration of, waterproofing of, A (4) 132.
compounds concerned in study of, X-ray diffraction measurement on, A (9) 369.
Pot-filling processes, development of plate glass, A (5) 170.
Pot furnaces, glass pockets in regenerative, A (7) 276.
in glass works, gas-heating of, A (7) 278.
Pot for glass-melting furnaces, underside of bottom arranged with grooves or passages, P (7) 279.
Potash, alkaline treatment of leucite for, A (10) 470.
find, in 26 more wells in Texas and New Mexico, A (5) 189.
minerals, govt. reports new finds of, in Southwest, A (3) 115.
from Palestine, deposits of Dead Sea, A (10) 468.
production, German, data on, for 1926, A (11) 542.
Potash-silica system, investigated for evidence of immiscibility, A (4) 157.
Potassium alum crystals, grown in presence of gelatin and dyes, study of adsorption at crystal-solution interfaces, A (11) 539.
determination of, in mixtures of salts, especially in saltpeter of Chile, by perchlorate method, A (11) 542.
fluosilicate, heat of formation, thermal dissociation of, A (10) 472.
oxide, determination of, in soda-lime glass, methods used at Bureau of Standards and recommended for routine work, A (12) 615.
Pots, glass-melting, properties and service of, A (6) 224.
Potteries, ancient, from site of Rakka, A (7) 253.
apparatus for cleaning, P (7) 295.
Potters, Near East Relief boy, in Jerusalem learning process of pottery making, A (12) 556.
Pottery, American Indian, form and color in, north of Mexico, A (5) 198, A (8) 318.
art, practical notes on, A (5) 165.
Babylonian, described, A (3) 92.
Baldwin toby-jugs, A (4) 128.
bottle, thermos, method of manufacturing, P (11) 535.
and China, Early American, B (10) 485.
Chinese, A (4) 127.
composition of china clay waste 76, ball clay 14, china clay 5, flint 2.5, and china stone 2.5%, P (12) 595.
cost accounting, A (7) 312.
decorative architectural, method of manufacturing, P (11) 532.
early Chinese, an important loan of, A (5) 163.
finds at French village of Glozel, near Vichy in Auvergne, A (12) 558.
freeing creative power of individual through making of, A (6) 204.
geology of country around Stoke-on-Trent, A (2) 69.
and glass factories in Bombay Presidency, A (12) 571.
glass, or refractory building stones, process of decorating, with photograph, P (11) 405.
and glass, technical classes for, in schools in Great Britain, A (11) 49.
Pottery and glass trade, art in, A (5) 165.
50 years' progress in, A (12) 625.
Pottery industry, fuel oil in enamel and, A (6) 235.
refractories for, II, A (6) 224.
relation of science to, A (3) 109.
science in, A (5) 184.
statistics on, A (1) 301.
Pottery, Islamic, B (4) 128.
Laughlin, contracts awarded for new million-dollar, A (5) 184.
Pottery Managers and Officials Assn., report of trip taken by this Assn. July 1927, A (10) 482.
Pottery manufacture of, some processes in, A (6) 230.
method of decorating with a photographic design by applying paper printed with overglaze color by collotype process, and firing, P (11) 495.
method of glazing; 2 or more glazes whose color after firing, or composition are not alike, P (11) 496.
method of manufacture; body matures at the same temperature as normal glaze; formulas given, A (10) 453.
modeled treatment of, various patterns, formulas for colored and mat glazes, A (1) 3.
molding machine, P (2) 69.
molding, by treatment in rotary chuck, P (11) 534.
North Carolina, of Steeds, or Aumons, picturesque Coles, or Jugtown establishment, A (12) 555.
North State described, A (3) 93.
ornamenting, with a glaze formed from ordinary potter's liquid colored glaze, dry china clay, gum arabic, water glass, dextrin, and ammonium alum, P (12) 559.
Pewabic, at Detroit; unique institution, A (4) 127.
and porcelain, Catalogue of George Eumorfopoulos Collection of Chinese, Korean, and Persian, B (1) 4.
process for putting marble pattern of luster on, P (11) 495.
recent examples of Brit., on exhibit at Victoria and Albert Museum, A (12) 558.
Rhages, acquired by Metropolitan Museum, A (6) 205.
in S. Australia, A (1) 30.
translucent, Brit. tariff on, A (7) 294.
Works, Calcutta, A (6) 229.
Worship; the Fallen Idols, B (4) 128.
Powdered coal furnaces, A (9) 398.
in German glass field, A (6) 236.
used in tunnel-kiln firing hard-fired common brick, A (1) 17.
Power losses in commercial glasses; dielectric constants, phase differences of 11 glasses investigated, A (7) 278.
Power plants in building material industry, A (9) 413.
Practical Colloid Chemistry, B (1) 38.
Practice, factory, a study of, A (5) 198.
Pre-Cambrian rocks in Northern Quebec, A (8) 358.

Preheaters, air, description of various types of, A (9) 394.
Presidential address, of R. L. Clare, AMERICAN CERAMIC SOCIETY enumerating the accomplishments of the SOCIETY, A (5) 195.
Prew, Jorg, the elder, Augsburg stained glass worker, biographical sketch, A (8) 320.
Prize competition, international, for theses to promote progress of chemical industry in Sicily, A (8) 364.
Processes development of plate glass pot filling, A (5) 170.
some, in manufacture of pottery, A (6) 230.
Producer gas in connection with firing fire brick, A (10) 458.
flame temperature of using preheated air and gas, A (10) 461.
lowers costs impressively at Maddock sanitary plant, A (11) 533.
Production methods, simplification of, A (10) 484.
Production, routing through kitchenware plant, A (9) 412.
Production schedule for ceramic plant, A (9) 412.
Progres de la Fonderie: Moulage et Fusion, B (3) 96.
Progress of Applied Chemistry; Annual Report, 1926, B (6) 248.
in plant and machinery in 1926, A (6) 250.
Pug mill, annular pan and hopper for feeding material to central portion of pan, P (2) 71.
Pump, stoneware centrifugal, A (5) 191.
system, an all-metal high-vacuum, A (6) 231.
water vacuum, theory of, A (10) 455.
Purdy goes to Europe to arrange for the AMERICAN CERAMIC SOCIETY trip, A (12) 624.
Purification of clays, removal of iron from clays, P (2) 88.
Purite, effect of, on refractories, A (9) 387.
Pyrex glass, dielectric constant of, A (7) 278.
and metal condenser tubes, relative efficiency of, A (7) 278.
(industrial) products offered by Corning Glass Works, A (5) 171.
Pyrometer glasses, effective wave length of, A (1) 12.
Pyrometer, Holborn and Kurlbaum disappearing filament, description and use of, A (7) 296.
improved, combines novel features of technical interest, A (6) 230.
resistance, mathematical discussion of use of pyrometers, A (2) 70.
sheaths, tubular, of sheet chromium steel, P (7) 297.
for taking temperatures of heated curved surfaces, A (4) 154.
use of, in cutting firing time and fuel consumption, A (7) 298.
Pyrometers, optical and radiation used in glass industry, A (8) 331.
Pyrometric cones, characteristics of, under reproducible conditions, temperature of end points determined for complete set using 2 rates of heating and various atmospheres, A (1) 39.
comparison of foreign and American; English, French, German, and American, A (1) 39.
Pyrometric terms, definitions of, A (4) 157.
standardized definitions of, issued, A (2) 75.
Pyrometry, some applications of, in ceramic industries of Great Britain, A (12) 595.
thermoelectric and resistance, in industry, discussion of, A (4) 153.
Pyrophyllite deposits, N. C., A (5) 188.
developments in N. C., A (11) 538.

Quality of flint glasses, judging by methods of surface devitrification, A (6) 218.
Quarry industry, safety in, A (12) 627.
problems in lime industry, A (9) 413.
Quartz, β, structure of, A (11) 541.
clear fused; uses and manufacture, A (12) 572.
crystalline, thermal conductivity of vitreous silica, A (6) 225.
dust and quartz sand, production of, Frechener flint, A (10) 468.
effect of, on expansion behavior of sagger materials, A (8) 351.
and flint, grinding, in Dorr mills for manufacture of porcelain, A (12) 593.
free, in feldspar, microphotographic study of, A (3) 108.
fused, for insulators, deterioration of, A (2) 56.
fused, product and process of producing, P (2) 68.
-glass tubes, method of manufacturing, P (11) 531.
inversion of; crystal structure, A (12) 620.
method and apparatus for working, P (12) 628.
recrystallization or inversion of; standard of thermometry, A (12) 616.
sand and lump quartz, 2 different mineralogical modifications, A (10) 472.
vitreous, uses of, A (2) 66.
vitreous, various uses of, A (5) 180.
Quartzite, Tertiary, of Central Germany and Importance to Refractory Industry, B (5) 183.
Quicklime, chemical analysis of, A.S.T.M. method of, A (1) 36.
fineness of slaked chemical, A (12) 559.
for structural purposes, standard specifications for, A (4) 131.
Quicksilver application in mirror industry of Fürth, A (7) 268.

Radiant heat, effect of on water-cooled furnace walls, A (9) 382.
Radiation, experiments on the determination of, in Siemens-Martin furnace, apparatus and method described, A (12) 606.
from luminous flames, methods of studying, A (10) 460.
Rail, draw-table; curved end formed on radius identical with radius of drums between plurality of rails is arranged, P (12) 578.
Rakka, ancient potteries from site of, A (7) 253.
Ramsayite, artificial, method of producing, optical properties, melting point and specific gravity, A (7) 306.
Rational analysis of clays, methods of E. Berdel, Kallauner, and Matejka, A (7) 304.
of clays, value of, A (1) 40.
of kaolins, practical experience with, A (8) 359, A (9) 401.
observations on, method of H. Backe discussed, modified method suggested by Kall, A (7) 307.
Raw materials of interest to manufacturer of ceramic products, definition, composition, occurrence, uses, given, A (12) 612.
used in production of ceramic wares; properties, composition, and uses, A (1) 40.
Reactions, physical and chemical, in rotary-cement kiln studied, A (5) 166.
Reciprocating car kiln, P (10) 465.
Recuperative soaking pit proves highly successful, A (11) 523.
Recuperators in clay industry, A (8) 353.
for industrial furnaces, description; Amco, Calco, Fitch, Mantle, Morgan, Dyrssen, A (12) 604.
or regenerators for glass furnaces compared, A (8) 335.
Reinforced hollow fracturable building unit, P (9) 381.
Reflectors, steel, porcelain-enameled, A (5) 200.
Refractories for acid-electric steel process, A (9)387.
the analysis of, A (6) 249, A (10) 445.
Atom machine for testing, under load at high temperatures, description, curves show abnormal expansion occurs before softening point of badly-fired silica, A (4) 148.
better, for high-temperature furnaces, A (4) 160.
blocks, cast, give highly satisfactory service, method, composition, physical properties, cost, A (1) 25.
boiler furnace, service factors governing the slagging of, A (9) 382.
classification of, for copper industry, A (5) 178.
classification for lead industry, A (5) 178.
clay and silica, variation of size occurring in, size tolerance suggested, A (1) 22.
corrosion and erosion of, A (9) 389.
corrosion and erosion of, dependent on density of solute rich layer relative to solvent and size of particles, A (4) 135.

cupola, properties; chief causes of failure of, A (11) 522.
cyanite and diaspor, effect of cyanite on shrinkage of diaspor, diaspor-clay refractories, and cyanite-clay refractories investigated; physical properties studied, A (11) 522.
deterioration and failure of, in glass works, A (11) 530.
diaspor and sillimanite as, properties of, A (4) 149.
Durox glass house, A (6) 249.
effect of open-hearth process on, A (1) 25.
effect of purite on, A (9) 387.
efficient round downdraft kiln for firing A (6) 234.
efficient round, downdraft kiln for firing, 17 periodic kilns studied for construction and design; operation, results; specifications for most efficient kiln, A (5) 185.
electrical, manufacture of; control methods, A (10) 447.
electrical, physical properties of magnesite, silica, chrome, fireclay, zirconia, bauxite, Carborundum; behavior in electric resistance furnace compared, A (10) 447.
experiences in furnace construction, A (11) 526.
field, developments in, A (1) 22.
fireclay, A (6) 227.
importance of shrinkage, in manufacture and use, A (11) 525.
load test; factors affecting life, A (1) 23.
firing problems; efficiency of plants, proper proportions of kilns, grade of fuel, type of draft, operation during firing, A (9) 395.
in foundry, A (6) 225.
in gas industry, A (9) 383.
in gas industry, desirable properties; tests, A (10) 445.
for glass industry, bibliography, A (1) 22.
glass industry, discussed, A (9) 382, A (12) 589.
glass tank, design and service of, effect on the life of tank, A (11) 505.
glassworks, deterioration and failure, causes of; requirements of refractories; mechanism of corrosion, effect of glass composition, A (8) 347, A (10) 446.
holing of silica, A (12) 589.
importance of texture to properties which are function, A (11) 528.
in India, manufacture of, A (8) 347.
for induction furnaces, pure magnesium oxide bonded with pitch, A (1) 25.
industry as chemical problem, A (5) 181.
industry; need of standardized expressions or nomenclature covering properties and characteristics of raw and finished materials in, A (11) 523.
investigation of fuel costs in manufacturing, A (11) 523.
macrostructure of, some corrosion and erosion phenomena, A (4) 149.
made of crushed fire brick and cement, A (12) 588.
for malleable cast-iron foundry, A (11) 523.
for manufactured-gas plants, requirements of, causes of failure; effect of composition, A (3) 105.
for melting pure metals: iron, nickel, platinum; calcined magnesia, sintered zinconia, A (2) 67.
for metals, preliminary report of subcommittee on survey of the non-ferrous industry for the American Foundrymens' Assn., A (4) 149.
mullite, load test on, results of tests when used in glass tank, A (3) 105.
mullite, properties of A (2) 64.
for oil-gas generators, A (1) 27.
for oil-gas manufacture, A (2) 64.
open hearth, factors affecting, A (6) 224, A (9) 385.
furnace, A (5) 177.
relative spalling resistance of various bricks discussed, A (9) 385.
steel furnaces, service conditions of, A (6) 225.
plastic fire clay, U. S. Govt. Master Specifications for, A (1) 21.
for pottery industry, part II, A (6) 224.
properties of materials classed under heading of, A (11) 528.
properties of, in metallurgy of zinc, A (4) 147.
for pure metals: iron, nickel, platinum, A (1) 25.
qualities of fireclay, effect of reheating at high temperatures on thermal dilatation, A (12) 588.
rendering nonplastic materials plastic, method of, P (8) 349.
report of 3rd annual meeting of American Refractories Institute, A (8) 346.
requirements of, for manufactured-gas plants, A (6) 223.
requirements of, for manufactured-gas plants; different types of vertical and horizontal retorts, properties of refractories and mortars desired, A (5) 177.
research in, by Laclede-Christy Co., work outlined, A (3) 106.
for rotary kilns, preparing diaspor and fireclay, A (12) 589.
selection of, modern viewpoints in, A (1) 27.
service condition of, for open-hearth steel furnaces, A (1) 26.
service conditions in furnaces burning Pittsburgh coal on chain grates, A (1) 24.
service factors governing slagging of boiler furnace, A (12) 588.
silica and fireclay, comparison of temperature diffusivities and conductivities of, A (3) 105.
importance of silica inversions to behavior of refractories in use, A (10) 448.
for iron and steel industries, A (6) 225.
slagging of, study of cone deformations in system anorthite–mullite–silica–magnetite, A (8) 346.
solid solution in spinel minerals and relation to use in, A (5) 177.
some corrosion and erosion phenomena; bearing on macrostructure of, A (6) 214.
spalling and loss in compressive strength when fired to 1250 and 1350°C; fireclay brick from Pacific Northwest studied, A (11) 522.
steel furnace, corrosion of, A (6) 226, A (9) 384.
temperature distribution in various, A (5) 179.
tentative definitions of terms relating to, A (11) 527.
thermal conductivity of, apparatus, method; bibliography, A (3) 104.
thermal expansion of, magnesite, diaspor, chrome ore, alumina, cyanite, silicon carbide, zirconium silicate, 13 brands of fire brick, A (8) 346.
thermal expansion of oxides of Si, Th, Zr, a mixture of 1 to 1 mol. proportions of ThO_2 and ZrO_2 and of MgO, Al_2O_3, and ZrO_2, A (1) 27.
troubles of furnace builder with, A (9) 386.
types of, A (5) 178.
in U. S. in 1926, research on, A (10) 448.
used in lead industry; types of furnaces in smelting and refining, A (5) 178.
utility of, chart prepared by American Refractories Inst., A (7) 287.
in Vancouver, A (12) 589.
various; effect of chlorine, sulphur dioxide, and carbon monoxide upon, A (11) 524.
in zinc industry, compositions given, properties of, various refractories compared, A (8) 344.
Refractoriness and chemical composition of clays, formulas given, A (8) 348.
of clay determined by Bischoff's formula, A (11) 528.
of clays; determination from water of constitution, A (1) 27.
Refractory, acid resistant, composed of carbonized clay, method of manufacture, properties of, A (3) 107.
Refractory articles, hollow globules of fused alumina molded under pressure with binder and fired, P (7) 291.
manufacture of, of pure zirconium oxide, P (5) 183.
method of making, binder of pitch, granules of Carborundum, P (1) 27.

Refractory blocks, method of making; preventing unequal shrinkage of top and bottom of, P (7) 290.
Refractory body comprising body portion of fire clay and edge portion of stronger refractory material, P (12) 590.
the forming of; calcining a composition of anhydrous silicate (alumina and topaz); conversion to mullite; formation from mullite by any temporary binder; firing at temperature to convert various particles into homogeneous mass, P (12) 591.
Refractory brick for coal-fired boiler installations, investigation of, A (7) 287
gas permeability of, used in metallurgical furnaces, A (9) 385.
manufacture of, from dolomite or other material possessing plasticity at high temperatures, P (1) 28.
method for quantitative determination of action of slag and flue dust on, A (5) 178.
stiff-mud, effect of water content and pressure of repressing on the porosity of, A (10) 447.
Refractory bricks, A (6) 224.
binding clay in form of a slip produced by addition of alkali added to ground chromite, molded, and fired, P (10) 451.
manufacture of; SiC intimately mixed with binding material, chiefly finely divided free SiO_2, P (5) 184.
manufacture of, refractory clay is worked without grog; finely ground material intimately mixed, molded under pressure, and fired in usual way, P (2) 68.
notes on flaking of, A (6) 225.
Refractory building materials, theoretical considerations on, A (12) 590.
cast, containing zirconium compound in substantial quantities; indigenous crystals in glassy matrix, P (4) 151.
Refractory casting, annealed, composed of compact, indigenous crystalline material, P (4) 150.
Refractory cement, neutral, powdered Al_2O_3 and powdered sodium silicate, P (1) 27.
of 1 to 10 parts dry pulverized bauxite, 2 parts cement, not more than 30% clay, P (6) 227.
repairing leaky baffles with refractory gun, A (1) 24.
Refractory clays, fundamental qualities of, data on elasticity, transverse strength, linear thermal expansion of Mo. semiflint, Pa. semiflint, Ky. semiflint, A (8) 347.
fundamental qualities of some, elasticity, transverse strength, thermal expansion at 20°C and 550°C, A (8) 346.
Italian, properties of A (9) 383.
nature and origin of, P (10) 444.
some fundamental properties of at 1000°C, modulus of elasticity, and transverse breaking strength at various temperatures, A (10) 446.
diatomaceous peat of Australia as, A (12) 553.
Refractory filling material, helical, for reversible hot-blast stoves and generators, P (12) 610.
furnace linings, wash suitable for spraying on defective furnace linings, composition given, P (1) 28.
glassworks, sillimanite as, data on use of, A (4) 136.
heat-insulating material, P (5) 183.
highly, materials, A (5) 180.
Refractory from Cristobalite, Preparation, and Properties of B, (10) 450.
Refractory industry as chemical problem, A (10) 450.
rapid growth of, in Germany, A (7) 286.
Refractory linings for cement kilns, types, requirements, A (9) 384.
composed of 40% ganister, 40% mica schist, and 20% fine clay, P (8) 349.
for cupolas, A (11) 523.
for furnaces, A (12) 589.
for furnaces, new material sought, A (11) 528.
sodium carbonate compounds affect, A (11) 522.
Refractory magnesite composition, P (6) 227.
forms, P (5) 183.
pulverized magnesitic body material and linseed oil; molding, curing molded article, and firing, P (4) 151.
unfired, composed of magnesitic body material mixed with suitable siccative oil, molded and dried to hardness, P (4) 151.
Refractory material, Carborundum as; increasing use in Germany, A (5) 181.
of chrome ore mixed with china clay and a soluble silicate, P (5) 184.
for furnaces in fusing metals, A (11) 528.
natural sillmanite for use in glass industry, A (10) 447.
prolonging the life of, by coating surface with special cement, A (9) 389.
from region of Bilin and Teplitz, (11) A 528.
suitable for coverings and the process for forming, P (12) 590.
testing of; behavior in metallurgical operations, A (5) 179.
testing of, for resistance to slag corrosion and erosion, A (6) 226.
under stress at high temperatures; testing and behavior, of, A (6) 226.
Refractory materials, action of soda-lime glass on, A (7) 288.
blended, report on cyanite-clay and diaspor-clay bodies, A (10) 447.
in carbonization plants, properties of, A (2) 67.
cement base, A (6) 226.
for Chambers of Coke Ovens and Gas Producers, B (5) 182.
chemical investigation of, A (11) 527.
for coking chambers and gas plates, discussion of properties of, used for this purpose, A (1) 21.
for coking chambers and gas works, A (5) 177.
in connection with construction of boiler settings, A (10) 448.
determining softening temperature of, A (7) 286.
an elementary account of chemical analysis of, A (12) 616.
fractional melting of, A (5) 178.
German Industrial Standards, methods of testing, A (11) 528.
importance to gas-works furnace construction; recent methods of investigating, A (11) 528.
influence of molten glass on, effect of composition of melt on solubility of; physico-chemical properties of; structural properties, A (3) 107.
Joint Committee, Report of the, on holding of silica refractories, A (12) 589.
for metal furnaces, A (9) 385.
nomenclature for, A (9) 387.
practical results and experience in drying and firing of, Uzallete system of drying, A (10) 459.
question of requirements for, A (5) 179.
resistance to action of slags shown by, method, apparatus, slag solubility number, and slag penetration number, A (10) 449.
resistance of, to slags, A (8) 348.
of South Wales, occurrence, preparation, properties, and uses, A (9) 389.
of South Wales; texture, chemical annalysis; silica brick from S.W., hearth sands, silica mortar, cement, fire clay, dolomite, A (8) 345.
spalling of, A (6) 226, A (10) 445.
such as MgO mixed with a fatty drying oil, molded and fired, P (3) 108.
testing of, A (6) 227.
testing laboratory for; expediency of establishing, in metallurgical plant; arrangement and problems of testing laboratory, A (7) 286.
testing of, requirements of, for different branches of steel industry, A (8) 346.
testing of, for resistance to slag corrosion and erosion, A (10) 445.
thermal expansion; importance in valuation of; apparatus, expansion curves over interval 25–1400°C; silica brick, Al_2O_3 rich clay refractories, chromite, zirconia, A (10) 449.
the thermal properties of, and consideration of factors influencing, A (6) 226, A (10) 445.

under stress at high temperatures, testing and behavior of, A (12) 589.
used in carbonization plants, testing of, A (2) 72.
variations in softening points of, due to rate of heating, A (5) 176.
of zirconium oxide or silicate or like material and binder obtained by dissolving Al, Ca, or Mg phosphate in H_3PO_4 or $CaSO_4$ in H_2SO_4, P (12) 591.
Refractory mortars, A (5) 182.
Refractory, mullite, for use in glass industry, behavior, properties, A (10) 447.
Refractory-oven material, requirements for, A (12) 590.
Refractory oxides, investigated by Bureau of Standards; suitable for melting pure iron and pure nickel in Arsem furnaces; calcined magnesia, sintered zirconia, A (2) 66.
Refractory products, data on physical properties of, A (2) 76.
simple apparatus for determination of porosity of, A (11) 528.
Refractory raw materials, comparable properties of, A (11) 528.
Refractory, requirements of, for use in metallurgical furnaces, A (5) 179.
Refractory service conditions in furnace burning Pittsburgh coal on underfeed stokers, A (12) 588.
in lead industry; industrial survey, A (5) 178.
Refractory shapes, manufacture of, requirements of a perfect refractory, A (9) 386.
Refractory substances, containing magnesium; calcining a mixture of magnesite and talc from 1000 to 1400°C, P (8) 349.
containing zirconium oxide; process of manufacture, P (3) 108.
tests suggested for; adaptability to metallurgical furnaces, A (5) 179.
thoria and zirconia, as electric furnace lining A (5) 179.
uses of sillimanite in boiler furnaces, A (12) 589.
Regenerator and burner construction of regenerative furnaces of iron industries; practicability of such practice in glass industry, A (3) 114.
tests on modern, at A. G. Charlotte works in Niederschelden on Sieg, A (10) 462.
Regenerators, factors governing effectiveness of materials used in, A (12) 574.
in open-hearth furnaces, use and efficiency of, A (11) 537.
or recuperators, for glass furnaces compared, A (8) 335.
Regulator, draft, automatic, A (5) 185.
Reliefs for glass, photographic production of, process and formulas, A (7) 256.
Report of General Secretary, 1926–27, A (6) 248.
Requirements of refractories for manufactured-gas plants, A (6) 224.
Research, bringing, up-to-date A (5) 198.
ceramic, statistical methods in, A (5) 194.
conference on ceramic, A (6) 248.
fundamental, value of, stressed, A (9) 409.
glass technologic, high temperature microscope; significance, A (6) 230.
institutions in Japan, A (10) 469.
Laboratories, Industrial, of U.S. Including Consulting Research Laboratories, B (10) 486.
relations between colleges and industry, A (3) 122.
scientific and industrial; Report of Committee of Privy Council for 1925–1926, A (6) 250.
up-to-date, discussion of latest tools for research worker, A (10) 453.
value of, to industry, A (1) 18.
work in engineering colleges, A (10) 484.
Work, How to Do, B (12) 623.
Resources, ceramic, of the South, A (5) 187.
of the South, nonmetallic, A (9) 400.
Rieke, R., biographical sketch, A (8) 363.
Rock analyses, graphic representation of, A (3) 119.
Rock dust, uses and preparation of, A (5) 199.
Rock products, air-separation methods in fine grinding of, A (6) 231.
work of Fire Underwriters Laboratories on, A (5) 175.
Rockingham, rise and fall of, A (9) 367.
Rodefer brothers, 50th anniversary, A (10) 432.
Roofing shingle having general shape of keystone, P (11) 532.
Roofing tile, projection on back, set on a rectangular base, P (11) 532.
water permeability of, A (10) 451.
Zoar type of, A (7) 283.
Rotary cement kiln, small rotary coolers surrounding and rotating with main shell preheats the incoming air, P (7) 263.
Rotary kiln, conical sections placed in various positions along length of, P (7) 264.
heat economy of, A (10) 460.
provided with 2 enlarged zones, each double regular diameter of kiln, situated between 3 regular kiln sections, P (8) 357.
refractory lining of, comparison of various linings, A (8) 346.
vs. shaft kiln for lime burning, A (8) 323.
Royal Copenhagen Porcelain Works, survey of, A (7) 255.
Royal Ontario Museum of Archeology, description of Chinese pottery collection, A (8) 320.
Rubber as economic abrasion protective covering, A (4) 153.
effective material to resist corrosion and abrasion; Vulcalock process, A (2) 70.
as lining for grinding mills, A (7) 297.
Ruby, color of, effect of various impurities on, A (2) 48.
Russia, development of glass industry in, A (4) 136.
glass manufacturing developments in, A (5) 169.
Russian glass industry, modernization in, A (7) 268.
Rutile, low fire glazes using, A (6) 204.

Safety tread unit, comprising antislipping tiles of bonded abrasive grains, P (5) 162.
Sagger clays, elasticity and transverse strength of, at elevated temperatures, A (7) 285.
progress report on investigation by Bureau of Standards; elasticity and transverse strength of at several temperatures, A (8) 350.
Sagger marls and sagger making, A (3) 107.
and sagger making; problems when materials are utilized, A (2) 64.
Sagger materials, expansion behavior of raw sagger materials containing quartz, A (8) 351.
Sagger symposium, notes on sagger bodies, A (9) 382.
thermal expansion, sagger clays and properties; tests with grog materials; questions and notes, A (2) 64.
Saggers, contributions to improvement of, A (7) 286.
fitted with one or more rings of nickel alloy, P (5) 183.
influence of wet grog on properties of, A (9) 384.
and other refractories, influence of wet grog on properties of, A (4) 148.
preparation of, for firing porcelain, A (9) 387.
Sales methods in brick industry, A (10) 442.
Samsoen's glass research, A (3) 101.
San Francisco, factor in glass industry, A (6) 215.
Sand-blast apparatus, P (12) 597.
Sand-blast gun, P (1) 32.
Sand-lime brick, adhesion of mortar to, A (8) 323.
adhesion of mortar to report of work in progress at the Bureau of Standards, A (6) 206.
development of, A (8) 325.
in England, preparation of, A (10) 443.
industry, heat economy in, A (10) 443.
plants in Germany, A (10) 443.
recent patent literature pertaining to, A (11) 499.
testing and properties of, A (10) 443.
Sand-lime mortars, effect of chloride and metallic sulphates on hardening of, A (5) 166.
Sand, method for grading and delivering, to glass-grinding machines, P (11) 510.
slag, evaluation of hydraulic properties, of, A (12) 565.
visual analysis of, A (9) 402.
Sands used in glass making, notes on, A (5) 172.
Sanitary plant, description of, A (8) 352.
Sanitary porcelain industry, economic and technical problems confronting the, A (7) 291.

Sanitary ware plant, development of, A (1) 29.
types of inspection employed in, A (9) 412.
Saskatchewan, clays of, properties, distribution, types, A (8) 363.
Sault Ste. Marie area, lake clays of, A (6) 238.
School of ceramic design in Ohio, need of, A (7) 255.
Schott, biographical sketch of life and works of, A (2) 52.
Schumann, C., obituary, A (8) 363.
Schwarz, A. B., biographical sketch, A (8) 363.
Science concepts, misemployment of fundamental, A (8) 359.
Science, Introduction to History of, B (12) 623.
in pottery industry, A (5) 184.
and the public, A (11) 546.
Scientific control in lime manufacture, progress in, A (5) 166.
Scientific societies in Japan, A (10) 469.
and Technical Societies and Institutions of U.S. and Canada, Handbook, B (10) 486.
Screen for conveyers, P (12) 599.
new improved vibrating, A (10) 454.
Screen vibrating, P (6) 232.
Sculptures, method and apparatus for making, A (10) 452.
Scum, drier, means of prevention of, suggested by research committee of National Brick Mfgrs. Assn., A (4) 145.
Scumming and efflorescence, causes; prevention of, A (2) 61.
Sedimentation analysis of Carbonundum, graphite, SiO_2, A (10) 480.
dispersoid analysis, Wiegner apparatus, A (10) 472.
Seeds, elimination from borosilicate crown glass, A (12) 572.
Selenium, effect of oxidation and reduction on color produced in glass by, A (5) 171.
optically clear; preparation of, for use in index media, A (5) 190.
red crystalline, preparation, refractive index, and dielectric constant, A (9) 408.
red stains for vitreous enamels, study of ceramic colors; their use; applying colored enamels; effect of enamel composition on color; batch formulas given, A (11) 503.
and tellurium dispersoid solutions with varying particle size, A (10) 478.
Semivitreous bodies, tests on, further investigation by Bureau of Standards; thermal expansion on 2 series of semivitreous bodies fired to cone 8; effect of increasing potash and decreasing soda, and vice versa, A (10) 452.
Separation, air, methods used in fine grinding of rock products, A (6) 231.
Separators, cyclone, for separating particles from air by centrifugal action, P (12) 600.
Service conditions of refractories for open-hearth furnaces, A (6) 225.
Sesquicentennial, ceramics at, A (2) 87.
Sesquioxides of iron, chromium, aluminum; study of transformations during calcination of, A (12) 618.
Set of concrete, studies on duration of and remixing of concrete, A (1) 5.
Setting of hydraulic binding materials, controlling rate of, P (12) 567.
Settling behavior of clay slips; effect of various sodium silicates on, effect of p_H on, A (6) 228.
Settling of small particles, duration of transient state in, A (12) 620.
Sewer pipe and conduits of ceramic materials, standardization of a factory for making, A (12) 586.
firing of, in 36 hours, A (3) 103.
making, on west coast, A (4) 145.
manufacture in Ky., A (10) 442.
in Va., A (8) 343.
79 years experience in, A (9) 381.
press, prevention of lamination in, A (1) 18.
salt glazing, possibility of, in tunnel kiln, A (5) 195.
Shales, interval specific heats of, A (12) 615.
Shape construction, notes on, A (9) 368.
notes on, development of course for training ceramic artists, A (7) 253.
Shape of test specimen, influence on absolute value and relative precision of resistance to compression of mortars, A (1) 5.
Shapes, clay, for window-glass industry, service requirements of special clay shapes for Lubbers, Colburn, and Fourcault window-glass machines, A (12) 586.
Sheet-drawing apparatus; a draw-pot; lip-tile above pot, removable member interposed between end of lip-tile and glass, extending below surface of glass, P (11) 511.
Sheet glass, method of forming; glass flows downwardly through elongated orifice, P (7) 279.
Sheffield and Metallurgical development, history of metallurgy, A (1) 9.
year's progress in study of glass, A (6) 214.
Shivering, methods to overcome, A (1) 28.
Shop fronts, modern, A (2) 49.
Show windows, methods of treating surface with various solutions to prevent freezing and coating, A (7) 268.
Shrinkage, causes of, A (11) 525.
Siemens-Martin furnace, construction of, A (7) 288.
experiments on determination of radiation in; apparatus and method described, A (12) 606.
Sieve analysis, accuracy of, errors involved in, A (9) 404.
hardness of materials neglected in granulometric, A (4) 160.
Sieve numbers, comparison of French, German, and English, A (6) 231.
Sieve specifications, study of, revised, A (1) 31.
Sieves, comparison of German 4900-mesh sieve with English No. 180, A (9) 394, A (10) 455.
Sieves, test, importance of good model for, A (9) 403.
test, wire cloth for, (German), A (6) 231.
Sieving, note on, method of conducting test, A (10) 483.
Sifting plant, efficiency of air separators, Raymond system described; international standards of screen fineness, A (1) 31.
Silesia, kaolin deposits of, A (6) 239.
Silica, adsorptive force of, for water, A (9) 405.
Silica articles, fused, a process for forming, P (12) 584.
treatment, method of glazing, P (8) 342.
Silica brick, alteration in open-hearth furnace, A (10) 445.
alteration in service in Martin furnace, A (7) 287.
for coke ovens, suggested specifications, A (5) 178.
containing lime, microscopic investigation of, A (7) 287.
data on physical properties of, A (2) 76.
drying and firing, A (5) 182.
effect of oxide impurities upon physical properties, A (5) 179.
for electric resistance furnace; properties of, A (10) 447.
firing and cooling in tunnel kiln, A (8) 346.
gun, for discharging moist granular silica material, P (4) 151.
influence of iron oxide and iron sulphides on rate of quartz conversion in commercial, A (9) 383.
influence of oxide admixtures on physical properties of A, (9) 387.
investigation of load test; expansion of, A (5) 179.
manufacture and use of, requirements; types of kilns used, A (10) 450.
problems, A (6) 225.
thermal expansion of, over interval 25 to 1400°C, A (10) 449.
used in coke ovens, structure of, A (5) 178.
Silica cement, effect of size of grain upon properties of, A (9) 382.
a study of refractory properties of, A (5) 195.
Silica, determination of, in soda-lime glass, methods used at Bureau of Standards, recommended for routine work, A (12) 615.
dust, effect of, on lungs, A (10) 473.
effect of, on tone of colored enamels, A (11) 503.
fused, quartz and silice; method of enlarging or building-up article of fused silica, P (8) 349.

Silica gel, absorbent properties, description of plant and method of manufacture, A (12) 617.
active forms; adsorptive capacities, A (10) 480.
and Refining Earths, B (12) 623.
Silica glass articles, method of forming rods or tubes, P (9) 390.
method of production of opaque, A (9) 389.
Silica, inversion of, influence of iron oxide in promoting, A (9) 383.
inversions, importance to combustion process and behavior of refractories in use, A (10) 448.
and lime in raw cement mixture, rapid determination of, A (6) 208.
linings for coke ovens, effect of NaCl on life of, A (9) 383.
loss of, during glass melting, A (5) 195.
method of producing hollow silica article; heating a charge of silica to plasticity in mold, P (7) 290.
method of purification, P (10) 481.
molding, method and apparatus, P (8) 341.
outcrops of, in S.Wales coal field, chemical analysis, A (7) 301.
physical properties of various modifications of, A (11) 541.
refractories for iron and steel industries, A (6) 225.
retorts, theories for corrosion of, A (12) 589.
sand found near Monroe, Wis., purity of, A (9) 399.
and gravel, quarrying for, A (12) 627.
production during last 25 years, A (9) 399.
in silicates, rapid method for determining, A (3) 119.
soluble, in cements, determination of, A (1) 5.
thermal expansion and transformation of, influence of foreign matter on, A (9) 383.
transformations, relation to behavior of refractories in use, A (7) 289.
vitreous, thermal conductivity of; note of crystalline quartz, A (6) 225.
uses of A (2) 66.
various uses of, A (5) 180.
Silicate articles, process and apparatus for producing, P (5) 183.
dicalcium and tricalcium, research on the hydration of, A (5) 166.
Investigation Institute of Kaiser Wilhelm Society for Furtherance of Science, purpose, A (8) 363.
melts, immiscibility in binary systems Al_2O_3–SiO_2, B_2O_3–SiO_2, K_2O–SiO_2, Na_2O–SiO_2, in ternary systems, A (4) 157.
minerals, hydrothermal alteration of, A (10) 468.
slags, notes on analysis, A (6) 249.
Silicates, alumina from natural, P (5) 183.
analysis of, A (5) 193.
chemical analysis of, errors often present in, A (11) 541.
determination of boric acid in, A (6) 218.
electrometric study of precipitation, A (9) 406.
leucite and other sodium and potassium, process for treatment of, with lime for purpose of extracting potassium or sodium and aluminum value, P (5) 194.
molten and solid, influence of water and carbon dioxide under pressure on, A (10) 475.
natural, new process for preparation of alumina from, A (5) 181.
in Portland cement, tricalcium or dicalcium silicate principal constituents of clinker, A (4) 132.
of soda, viscosity of aqueous solutions, A (7) 274.
sodium, aqueous solutions of, A (6) 239.
sodium, aqueous solutions of, silicate ions, electrometric titrations, diffusion, and colorimetric estimation, A (6) 240.
various sodium, and other electrolytes on clay slips, effect of, A (6) 228.
Siliceous composition of matter, P (3) 120.
Silicic acid in ceramics, action of, and effects on various physical properties of ceramic bodies, A (11) 541.
determination of in mixtures of fluoride, sand, and silicates, A (3) 117.
effect of various forms on porcelain bodies, A (6) 229.
sols, alkaline, properties of; study of change from hydrophile sol to hydrophobe sol, A (10) 477.
sols, constitution of, A (10) 476.
Silicon carbide, recrystallized, application of, in porcelain kilns, A (1) 26.
refractories containing, from 30 to 90% with binder of free silica and small amount of clay or lime, P (8) 349.
refractories for water-gas generators, generator capacity increased, A (1) 21.
Silicon, chemistry of, A (8) 363.
Silicon dioxide and its hydrates, A (3) 118.
polymorphism and structure of tridymite, A (6) 246.
Silicon of high purity; melting point, A (8) 361.
organic derivatives of, carbon-silicon binding, A (10) 471.
oxide, thermal expansion of, A (3) 105.
Silicosis, British employers responsible under Workman's Compensation Act, A (12) 625.
effect of silica dust on lungs, A (10) 473.
experimental, A (5) 200.
exposure to silica dust without occurrence of, A (5) 200.
occurrence and clinical manifestations, A (5) 200.
pulmonary, statistical characteristics of, dust phthisis, A (5) 200.
Sillimanite, bonded article of super-refractory grains, P (4) 151.
commercial, some uses of, in glass works, A (6) 223.
and cyanite, (India) A (5) 180.
discovery of, near Adelaide, S. Australia, A (4) 149.
as glass works refractory, data on use of, A (4) 136.
as glass works refractory, further note on, A (4) 149.
measurement of crystalline, subjected to X-ray analysis, A (12) 593.
and mullite, note on X-ray patterns of, A (6) 223.
natural, as refractory material in glass industry, A (10) 447.
uses of, as refractory in boiler furnaces, A (12) 589.
X-ray examination of, A (7) 303.
Sil-O-Cel, properties of as insulating material, A (3) 112.
Silvering of glass and quartz filaments, A (7) 269.
Simplification program adopted for white glazed tiles and underglazed ceramic mosaic, A (3) 110.
Sino-Lowestoft, description of china, in Met. Mus. Art, A (1) 4.
Sintering, recent studies of processes involved in burning powdered materials below point of fusion, A (9) 403.
Size, particle, distribution of typical feldspars and flints, A (5) 198.
of particles, mathematical methods of frequency analysis of, A (12) 619.
Slag action, question of, A (5) 179.
Slag cement, process of manufacture; mixing variable lime content with about 70% of undried granulated slag, P (7) 263.
Slag corrosion and erosion, testing of refractory material for resistance to, A (6) 226.
Slag from cupola furnace; testing and investigation of, A (9) 387.
Slag erosion, laboratory study of, A (9) 385.
laboratory study, on boiler furnace refractories, microscopically and by laboratory duplication of plant results, A (12) 587.
Slag and flue dust, action on refractory brick; method for quantitative determination of, A (5) 178.
Slagging of boiler furnace refractories, prevention of by use of NaCl, A (9) 382.
Slags, apparatus for granulating, under pressure, P (7) 263.
blast-furnace, cause of disintegration of, A (5) 190.
blast-furnace, testing of stability of, by means of ultra-violet light, A (5) 190.
chemical analysis of, A (10) 458.

and fluxes, composition and uses, A (12) 627.
iron-blast furnace, composition of, A (6) 239.
Slate in Northampton County, Pa., A (12) 615.
Slip-casting, a note on thixotropy in clays; effect of shaking on liquefaction of coagulated sol, A (12) 591.
Slips, clay, effect of various sodium silicates and other electrolytes on, A (5) 198.
Smelting cost, good mixing reduces, A (8) 327.
Smelting practice, A (6) 239.
Smith, Alfred Mica, obituary, A (6) 205.
Smoke, electrical precipitation of, description of Lodge-Cottrell process, A (1) 40.
Soap making, colloidal earth in, A (9) 414.
Society of Chemical Industry, Edinburgh meeting, 1927, A (6) 250.
Society of German Chemists, ceramic papers from 39th convention of, A (8) 363.
Society of Glass Technology, papers abstracted: (1) annealing of glass, (2) methods of detecting stresses in glass, (3) a new annealing leer, (4) relationship between chemical composition and upper critical annealing temperature of glasses, A (2) 53.
Presidential Address, A (3) 101, A (6) 214.
report of April meeting 1927, A (8) 362.
report of May, 1927, meeting, titles of papers presented, A (9) 410.
10 years retrospect, A (2) 86, A (3) 120.
Soda ash, achievement in manufacture in Japan, A (10) 469.
control testing of, in smelting of enamel frits, A (7) 265.
U. S. Govt. Master Specification for, A (6) 247.
Soda and boric oxides, some effects of varying in ground-coat enamels, A (6) 212.
Soda-lead oxide glasses, properties of some, A (6) 216.
Soda-lime glass, analysis of, A (5) 170.
chemical analysis of, methods of, used by Bureau of Standards; recommended methods for routine work; results on standard sample No. 80; accuracy expected, A (12) 615.
and clay, reaction of, experiments on study of, A (12) 586.
Soda-orthoclase, influence of temperature on path difference and on schillerization in, A (10) 478.
Soda-silica system, investigated for evidence of immiscibility, A (4) 157.
Sodalite, structure of, A (9) 406.
Sodium antimonate, effect of, on tone of colored enamels, A (11) 503.
Sodium bicarbonate, process for manufacture of; production of nitrogen, P (2) 85.
Sodium and calcium bisilicates, solid solutions of, A (2) 76.
Sodium carbonate aqueous solution, viscosity and surface tension of, A (10) 479.
caustification of, by ferric oxide, heat of formation of sodium ferrite, thermochemical equations for various reactions; specific heat of Na_2CO_3, A (10) 469.
compounds affect refractory linings, A (11) 522.
dissociation pressure of, in presence of Fe_2O_3, A (10) 470.
thermal dissociation of, A (10) 470.
Sodium ferrite, heat of formation of, A (10) 469.
Sodium fluoride, process for preparation of, P (9) 409.
Sodium fluosilicate, heat of formation, thermal dissociation of, A (10) 472.
volatilization of, A (7) 275.
Sodium hydroxide, aqueous solution, viscosity and surface tension of A (10) 479.
Sodium nitrate, A (6) 240.
methods of producing; physical properties of, A (6) 240.
Sodium oxide, determination in soda-lime glass; methods used at Bureau of Standards and those recommended for routine work, A (12) 615
Sodium replacement of in glass by alkali metals and ammonium, A (6) 218.
Sodium silicate solutions, aqueous, diffusion of, across semipermeable membranes, A (10) 476.
aqueous, viscosity of, A (7) 274.
Sodium silicate, use of, in casting clay ware, A (2) 69.
Sodium silicates, aqueous solutions of, A (5) 189.
some vapor pressures and activities of aqueous solutions of, A (12) 619.
various, effect on clay slips, effect of varying the Na_2O to SiO_2 ratio on flowability of clay slips, A (6) 228.
Sodium sulphate, substitute for soda ash, advantages and disadvantages, A (4) 137.
W. Canada, occurrence, uses, and technology, A (3) 120.
western deposit of; developed commercially, A (8) 329.
Softening points of refractory materials due to rate of heating, variation in, A (5) 176.
Softening temperature of glasses, method for measuring, A (6) 213.
of refractory materials, determination of: factors affecting, A (7) 286.
Softening of water, method of and apparatus for the continuous, by use of zeolites, P (2) 87.
Soils, clay colloids of, A (10) 470.
in 1926, A (6) 246.
Solid solution, diffusion in, A (6) 246.
in spinel minerals and relation to use in refractories, A (5) 177.
Solid state, chemical reaction at high temperatures, A (10) 472.
Sols, sensitizing, by small quantities of other colloids, A (10) 478.
Soluble silica in cements, determination of, A (1) 5.
Solubility of enamel frit in mill water, A (7) 264.
of fired bodies in hot sulphuric acid, measurement of progressive vitrification, A (8) 350.
Solution, solid, and chemical compounds, A (6) 246.
Solvay process for the production of soda, A (9) 401.
South Africa, Sabie, deposit of kaolin near, A (6) 238.
South African china clay, comparative trials of washing made on raw clay, physical tests on raw clays and earthenware bodies, drying and firing shrinkage, A (10) 367.
South, ceramic resources of the, A (5) 187.
South Dakota, rock products industry in, andalusite, bentonite, feldspar, gypsum, A (7) 301.
South Wales, refractory materials of, occurrence, preparation, properties, and uses, A (9) 389.
refractory materials of, texture, chemical analysis, silica brick from S.W., hearth sands, silica mortar, cement, fire clay, dolomite, A (8) 345.
Southern Gypsum Co., plant of, A (5) 166.
Spall test, A.S.T.M. method of test for resistance of fireclay brick to spalling action, A (1) 21.
Spalling of bricks, investigation of causes of, A (1) 17.
classification of causes of, A (11) 527.
of refractory materials, A (10) 445.
of refractory materials, review of literature on subject; bibliography, A (6) 266.
in silica-gas retorts, A (9) 384.
Spalling test on fire brick, definition; importance; various methods in use; new method of testing, A (11) 522.
for fireclay brick, A (5) 178.
Spanish art, B (8) 322.
Spark plugs, description of plant of Champion Porcelain Co., manufacturers of, A (4) 152, A (9) 411.
Sparking plug, P (12) 594.
Specific gravity, apparent, and porosity of porous materials, apparatus for the determination of, A (7) 309.
determining apparatus, P (12) 623.
simple method for determination of, of brick, A (10) 470.
of various ceramic bodies, A (2) 76.
Specific heat apparatus, new, A (6) 241.
and heat tone of clays, A (7) 298.
of metals, improved metal colorimeter for determination of, A (7) 304.
of Portland cement clinker, A (5) 167.
of sodium carbonate, A (10) 469.
Specific heats of ceramic materials, A (1) 36.
of clays, A (9) 400.

interval, of 23 refractory clays, method and apparatus described, A (12) 615.
and thermal reactions of clays, discussion, A (7) 302.
true, new method for determining, at high temperatures, A (5) 193.
Specification for soda ash, U. S. Govt. Master, A (6) 247.
Specifications, proposed, for clay fire brick for malleable furnaces with removable bungs and annealing ovens, A (5) 177.
Spectroscopy, B (8) 361.
Spinel minerals, solid solution in, and its relation to use in refractories, A (5) 177.
solid solutions of, A (9) 387.
Spodumene, hydrothermal alteration of, A (10) 468.
Spraying cabinet, P (1) 10.
Spun glass and glass figures, production of, A (7) 256.
Stack, effect of height of, on furnace operation, A (7) 298.
Stack forming and feeding mechanism, supporting plurality of articles on edge and face to face in abutting relation and for feeding articles in continuous stream, P (12) 599.
Stained Glass Association, report of June, 1927 meeting, A (9) 411.
Stained glass a lost art? statement refuted by example of modern stained glass, A (1) 4.
windows in Washington Memorial Chapel, description, A (1) 4.
Standardization, benefits to cement industry outlined by Dr. Burgess, A (8) 323.
and plant control as applied to body making, A (6) 228.
Standardizing aggregate names, A (5) 166.
Standards and procedure control, necessity for operating, A (5) 198.
Startsman heads National Glass Distributors, A (2) 86.
Statistical Mechanics with Applications to Physics and Chemistry, B (12) 623.
Steam accumulators, Ruths', described, A (2) 70.
Steam boilers, combustion chamber of, burning powdered coal, A (8) 357.
oil fuel for, A (2) 87.
Steam effect of, on transverse strength of fireclay brick, A (6) 223.
in gases, apparatus for the determination of, A (7) 304.
at high pressures, recent experiments on properties of, A (2) 84.
in limestone decomposition, A (6) 206.
Steatite, data on physical properties of, A (2) 76.
Steel, acid electric, qualitative and economic importance of, effect of impurities on refractories, A (9) 387.
and alloys used in ceramic industry, A (8) 353.
and clay products for permanency, A (10) 442.
heat conduction in, anomalies in, A (2) 51.
notes on pickling of, for enameling purposes, A (12) 568.
Steel tubes, soundness in, corrosion and pitting, effect of sulphur on corrosion of, A (1) 9.
"Stehmann" cooler, description of, A (6) 207.
Stilbite, the dependence of vapor pressure of, on the water content and temperature, A (10) 474.
Stoke-on-Trent, geology of country around, A (2) 69.
geology of pottery and brick clays around, A (3) 123.
Stoker construction, improvements in, over a period of a century and a half, A (11) 536.
Stokers, mechanical description of various automatic stokers for gas producers, A (5) 186, A (7) 299.
Stone, lightweight artificial, P (9) 373.
machine-broken, gradation of, A (6) 231.
or marble, artificial, process of manufacture and materials, P (7) 262.
preservation, methods, reagents to be used, A (9) 413.
Stone ware bodies, chemical, some physical properties of, A (9) 400.
characteristic properties of, uses of, requirements of, for various uses, A (7) 294.
as chemical engineering material, tensile strength, compressive strength, thermal properties, types of glazes, A (9) 391.
chemical, physical properties of German, to show improvement by comparison A (11) 498.
chemical, some physical properties of, A (5) 199.
Cologne brown, described, A (8) 322.
Crolius and early American, several examples illustrated, A (10) 419.
data on physical properties of, A (2) 76.
discussion of bodies and glazes, A (10) 453.
of high resistance against perforating power of electrical sparks; making stoneware, P (12) 593.
industry, German, development and future aims, A (11) 498.
industry, paths and goals of, A (6) 227.
manufacture of, types of clays used, A (10) 451.
Storage bins and conveyers within factory, A (11) 536.
Storage of cement test specimens, constant temperature-humidity box for, A (6) 206.
and handling of raw materials, A (6) 222.
Stourbridge, firebrick industry of, A (10) 450.
Strain tester for glass, a new, A (7) 276.
Strength, transverse, of fireclay bricks, effect of steam on, A (6) 223.
Strontium oxide-silica system, immiscibility in, A (4) 157.
Structural formulas for cement, blast-furnace slag, and minerals, A (10) 471.
Structure of β quartz, A (11) 541.
of certain silicates; cyanite, chrysoberyl, olivine, monticellite, topaz, A (9) 404.
of compounds Fe_2S_4, Co_2S_4, Ni_2S_4, A (10) 479.
of compounds Fe_2S_4 and FeS; identity of crystal structure of these compounds proved by X-ray examination, A (10) 473.
of fired bricks, composition and, A (5) 175.
of magnesium di-zincide, A (7) 309.
and properties of crystals, researches on, A (7) 308.
of pulverized coal, fineness and, A (6) 234.
of tridymite; polymorphism of silicon dioxide, A (6) 246.
Sulphates, quantitative determination of, in form of barium sulphate, A (8) 359.
used in firing of pure and aluminous alkali-lime-silica glasses, A (7) 271.
Sulphur dioxide, adsorption of, by glass walls, A (11) 542.
determination of, in presence of excess air, A (7) 309.
Sulphur in fuel, and its determination, A (6) 236.
Sulphur trioxide, determination of, in soda-lime glass, methods used at Bureau of Standards; those recommended for routine work, A (12) 615.
Sulphurous acid from gypsum, A (10) 471.
Supercement, certain cements and their properties, addition of catacoll to Portland cement, A (3) 95.
manufacture in U. S. A., by displacement of part of gypsum used to regulate set by special plaster treated with oakgall tannin, A (12) 564.
production of, in rotary kilns, A (12) 565.
Super-refractories, use of, as checker brick in gas manufacture, A (6) 223.
Support and backing for terra cotta or other facing blocks by attaching means to facing blocks and wall, P (12) 591.
Surface clays, interval specific heats of, A (12) 615.
Surface devitrification of glass, cause of, A (2) 52.
Surface, direct heating, effect of on efficiency, A (5) 196.
Surface Equilibria of Colloids, B (2) 85.
Surface-tensiometer and osmometer for class work, A (1) 37.
Surface tension and viscosity of aqueous solutions of potassium, sodium, lithium, thallium and barium hydroxides, and sodium carbonate solution, A (10) 479.
Synthol, description of process of manufacture, A (3) 112.

Syrian pottery described, A (7) 253.
System, Ag_2O–B_2O_3, A (10) 473.
Al_2O_3–SiO_2, new investigations in, A (7) 304.
aluminum-calcium-silicon, the, A (5) 192.
alumina-silica, melting points of mixtures in, A (5) 177.
anorthite-mullite-silica-magnetite, cone deformation study, A (8) 346.
BaO–B_2O_3, A (10) 473.
CaO–CrO_3–O_2, A (10) 475.
CaO–Na_2O–SiO_2, A (6) 216.
CaS–$CaSiO_3$, A (10) 474.
Fe–C–Cu, A (10) 478.
kaolin-chrome compounds, melting points of mixtures in, A (5) 177.
kaolin-titanium oxide, melting points of mixtures in, A (5) 177.
lime-alumina, melting points of mixtures in, A (5) 177.
lime-alumina-silica, melting points of mixtures in, A (5) 177.
lime-alumina-silica, studies on the, A (6) 239.
lime-iron oxide, melting points of mixtures in, A (5) 177.
lime-silica-alumina, an investigation of the compound $8\,CaO \cdot Al_2O_3 \cdot 2SiO_2$, A (7) 305.
lime-silica, melting points of mixtures in, A (5) 177.
magnesia-alumina-silica, melting points of mixtures in, A (5) 177.
magnesia-lime-alumina, melting points of mixtures in, A (5) 177.
magnesia-lime, melting points of mixtures in, A (5) 177.
magnesia-lime-silica, melting points of mixtures in, A (5) 177.
magnesia-silica, melting points of mixtures in, A (5) 177.
magnesite-kaolin, melting points of mixtures in, A (5) 177.
MnO–Al_2O_3–SiO_2, A (10) 474.
MnS–$MnSiO_3$, A (10) 474.
Na_2O:SiO_2:H_2O, heterogeneous equilibria of, at 25°C, A (6) 239.
silica-alumina-lime-magnesia; discussion, A (6) 239.
silica, the determination of polymorphous modifications of, in fired clay by X-ray method of Debye-Scherrer, A (12) 622.
SiO_2–Al_2O_3, A (11) 528.
SiO_2–CaO:Al_2O_3, compounds of, their properties and technical significance, A (3) 118.
soda-lime-potash-alumina-silica, physical and chemical properties of, A (9) 410.
soda lime-silica, equilibria in, A (7) 303.
soda-lime-silica, X-ray diffraction measurements upon compounds in this system, A (2) 75.
soda-lime-silicic acid, stability of glasses in, A (12) 569.
vitrified floor, for trickling filters perfected by Metropolitan Paving Brick Co., A (5) 175.
well-known clays-zirconium oxide, melting points of mixtures in, A (5) 177.
ZnO–B_2O_3, A (10) 473.
Systems, CaO–Fe_2O_3 and MgO–Fe_2O_3, A (5) 190.
MgO–Fe_2O_3 and CaO–Fe_2O_3, A (5) 190.
optical, on testing of, by Ronchi's interference methods, A (4) 158.

Table ware, mechanical testing of, apparatus, method, impact strength on ware from 13 companies, A (7) 292.
Talc bodies, substitution of calcined ball clay for nonplastic in, A (3) 108.
Talc deposits of Canada, 3 types described, A (7) 302.
Talc, effect of addition of, to diaspor refractories, A (11) 522.
Tank, Amco "L" continuous glass melting, A (6) 214.
Tank block endurance, A (5) 180.
problem solved at Corning; cost; tank block described, A (1) 22.
problems, Society of Glass Technology studies, A (4) 149.
Tank blocks, cast, new company to produce, A (10) 448.
design and service of, A (6) 249.
design and service of, effect of, on life of tank, A (11) 505.
erosion of, factors affecting, A (1) 10.
mullite content of, determined by hydrofluoric-acid method, A (1) 10.
process of drying, P (6) 227.
related factors entering into problem of profitable investment in furnace walls, A (2) 64.
Tank, tunnel, new type of, replaces day tank, A (5) 169, 195.
Tanks for opal glass production; suitability of, A (12) 575.
for opal glass, use of; white glass tanks, A (12) 576.
Tariff, present and prospective, A (11) 545.
Tariff reduction, ceramic men warned of, A (9) 409.
Taylor, Smith & Taylor awards contracts for new plant, tunnel kilns, A (6) 230.
Technical control, methods of maintaining, in glass works, A (5) 171.
Technical interest, improved pyrometer combines novel features of, A (6) 230.
Technologie chimique des matières premières de l'émail, B (7) 266.
Technology, Ceramic, B (9) 415.
Telescope mirror, 25 feet in diameter proposed for massive telescope, A (1) 14.
Tellurium and selenium dispersoid solutions with varying particle size, A (10) 478.
Temperature control, automatic, in use at Mount Clemens Pottery Co., A (7) 298.
in works processes; various types of optical pyrometers, A (2) 71.
Temperature determinations in glass industry; use of optical and radiation pyrometers, A (8) 331.
Temperature distribution in various refractories, A (5) 179.
Temperature, gaseous, measurement of, by use of a modified suction pyrometer, A (12) 603.
-gradient curve for Hoffman continuous coal-fired kiln; study of heat-balance and thermal efficiency, A (12) 601.
high, measurement of, and improved electric filament pyrometer, A (1) 36.
-humidity box for storage of cement test specimens, constant, A (6) 206.
Temperature Measurement, Exact Technical, Introduction to, B (5) 194.
of gas in industry, A (10)461.
in glass furnaces, description of methods, effect of flame on; measurement in various places in pots and tanks, A (7) 271.
in industrial practice, methods, apparatus, A (3) 111.
with thermoelements, A (10) 455.
Temperature measuring devices, modern forms of electrical, A (4) 154.
Temperature, mechanical shock, and chemical action, glass capable of withstanding abrupt changes of, A (5) 172.
regulator for furnaces, etc., P (12) 600.
Temperatures attained in various industrial kilns, A (6) 236.
in bottles after filling with hot catsup, A (12) 573.
low, on measuring of, A (5) 190.
in powdered-coal furnaces having extended radiant heat absorbing surfaces, A (6) 223.
steady, liquid fuels afford, A (6) 235.
Tensile strength of various ceramic bodies, A (2) 76.
Tension, investigation of glass in, A (6) 216.
Terra cotta, advertising color of, A (9) 410.
blocks, rubber, laid in streets of London, A (2) 68.
and brick used in Armory Building of Indiana National Guard, A (11) 517.
clay, grinding, to pass 80-mesh; description of 2 installations, advantages of finely-ground clay and use of air separation described, A (11) 532.
concerning N. German brick architecture, A (3) 108.

Division of AMERICAN CERAMIC SOCIETY papers presented at Detroit Meeting, A (5) 197.
drying problems of, A (5) 195.
drying problems of, comparison of large steam-heated driers and smaller units heated by natural gas, A (8) 349.
firing, in open gas-fired kiln, A (5) 195.
firing, in open kiln, A (12) 591.
glaze, pink discoloration of, by presence of chromium communicated by kiln atmosphere, A (7) 291.
men, several interesting papers before, A (6) 250.
notes on physical properties of, A (5) 195.
physics, observations on, apparatus for determining a representative "over all" coefficient of expansion of terra cotta under service conditions is described, A (10) 451.
pink discolorations on, A (5) 195.
soluble salts and application to, A (5) 195.
some fundamentals of, A (1) 28.
true functions of, A (8) 349.
Terra cottas, bronzes, and other masterpieces of Minoan art found in Crete, A (12) 558.
Test methods applied to ceramic products, various methods described, A (9) 402.
for ceramic raw materials and products, of German Ceramic Society, A (7) 304, A (8) 361.
Test, some glasshouse, to determine differences in general characteristics and in working properties of molten glass, A (6) 214.
specimen, influence of shape of, on absolute value of resistance to compression of mortars, A (1) 5.
weathering, simple, for glasses, A (5) 172.
Testing and behavior of refractory material under stress at high temperatures, the, A (6) 226.
Commercial, and College Research Laboratories, Directory of, B (10) 486.
of refractory material for resistance to slag corrosion and erosion, A (6) 226.
of refractory materials, A (6) 227.
of vitreous enamels, use of muffle furnace in, A (6) 212.
Texas, ceramic development in, A (5) 188.
rock products in, A (10) 468.
Texture of ceramic materials, shape of grains, size, plasticity, drying, shrinkage, firing and grinding, A (2) 74.
Thallium hydroxide aqueous solution, viscosity, and surface tension of, A (10) 479.
Thermal analysis of plaster, apparatus, curves showing temperature rise during setting, A (7) 260.
Thermal changes, kaolin and its, A (6) 240.
Thermal characteristics of clays, A (9) 400.
Thermal conductivities of insulation for temperatures up to 1000°F on other than flat surfaces, review of literature, apparatus used; temperature drop from air-insulated steam lines to the surrounding air is made up of 5 items, A (2) 65.
of metal crystals, bismuth, A (6) 241.
of refractories, data on variation of with temperature of a number of refractories, A (9) 386.
Thermal conductivity data for liquids, A (6) 244.
diffusibility, and heat capacity at high temperatures, effect of porosity upon, A (5) 182.
of gases, air, and H_2, studied, A (12) 620.
of glass wool, cork, Sil-O-Cel, powdered cork, cotton, sheep's wool, A (1) 10.
of semisilica material used in coke-oven wall, effect of industrial usage on, A (3) 106.
of some refractories, apparatus, method, bibliography, A (3) 104.
of various ceramic bodies, A (2) 76.
of vitreous silica, with note on crystalline quartz, A (6) 225.
of vitreous silica over range 70 to 250°C, A (9) 411.
Thermal dissociation of fluosilicates, sodium, potassium, and barium fluosilicates studied, heats of formation of these determinations, A (10) 472.
of sodium carbonate, in presence of ferric oxide and some empirical dissociation pressure equations, A (10) 470.
Thermal efficiency of ceramic kilns calculated, heat-balance study of Hoffman continuous coal-fired kiln, A (12) 601.
Thermal endurance, Winklemann and Schott formula for coefficient of, application of, A (1) 36.
Thermal expansion of alkali feldspars, values given over range 180 to 900°C, A (12) 621.
of chemical stoneware bodies, A (9) 400.
of clays and special refractories, magnesite, diaspor, chrome ore, alumina, cyanite, silicon carbide, zirconium silicate; 13 brands of fire brick, A (8) 346.
of glasses, relationship between chemical composition and, A (9) 374.
of glasses and wires; apparatus for measuring, A (6) 247.
of Jena glass 16^{III} at low temperatures, A (1) 11.
of porcelain, A (1) 36.
of refractory materials; importance of, in valuation, silica brick, mullite brick, chromite, zirconia, over range 25 to 1400°C, A (10) 449.
of some fused oxides used as refractories, silicon, thorium, magnesium, aluminum, A (3) 105.
of ZrO_2, ThO_2, and mixtures of these oxides, Al_2O_3, MgO, SiO_2, A (1) 27.
Thermal insulation of electric furnaces; new fireclay refractory, thermal conductivity of fused Al_2O_3, fused MgO, fire clay, and new high temperature insulating material, A (1) 26.
Thermal and microscopical investigations of cupola-furnace slag systems: $MnO-Al_2O_3-SiO_2$, $MnS-MnSiO_3$, $CaS-CaSiO_3$, A (10) 474.
of ceramic products; coefficient of expansion of porcelains, specific heats of a large number of materials at different temperatures; thermal endurance, A (1) 36.
of refractory materials and a consideration of factors influencing them, A (6) 226, A (10) 445.
Thermodynamics and Chemistry, B (8) 361.
Treatise on, B (8) 361.
Thermometer blowing, calculation of mercury content and scale length for, A (10) 455.
Thermometer glasses, aging of; most suitable treatment for artificially aging glass, A (7) 277.
Thermometer industry of Thuringia, development of, A (9) 410.
Thermometers, descriptions of, A (5) 190.
testing of, at National Physical Lab., A (2) 56.
Thermometry, inversion of quartz—573.3°C, used as a standard of, A (12) 616.
Thermoregulator, pouring mercury on top of the ordinary toluene, filling until level stands above seating; inserting glass plug; pouring in more mercury, when plug carrying contact wire is put in, A (12) 595.
Thermostat combined with an internal combustion engine and a cooling system therefor, P (12) 598.
Thermostatic-valve mechanism to control flow through conduit, P (12) 598.
Thixotropy in clays, a note on, liquefaction of a coagulated sol by shaking, A (12) 591.
Thoria and zirconia refractory for electric furnace lining, A (5) 179.
Thorium oxide, thermal expansion of, A (3) 105.
Thorn-Prikker and his religious glass windows, A (7) 267.
Thornburg glass pot, description of, method of making, A (12) 586.
Thuringian glass, chemical composition of, properties of, types of, A (2) 54.
Tile, aggregate-cement, P (5) 162.
Tile-coating machine and process, P (7) 295.
Tile, body portion of gypsum plaster; fibrous cover sheet; covering of paint enamel on cover sheet, P (12) 594.
cutter, means for severing a continuously downwardly moving column of plastic material; means for receiving severed sections, P (4) 147.

decorating, method of manufacturing, of any kind, P (11) 533.
drain, interesting historical facts on, A (3) 103.
faults of concrete which has supplanted, A (5) 175.
floor, new process for making, and the properties of a new floor tile, A (12) 592.
floor and wall; industry, economic, and technical problems confronting, A (7) 294.
gypsum, from synthetic calcium sulphate, A (7) 260.
hand-molded, in Greece, preparation of, A (10) 452.
hollow building, under fire, tests conducted at Bureau of Standards, A (7) 283.
hollow fired-clay fireproofing, partition and furring, A.S.T.M. specifications for, A (1) 18.
hollow fired-clay floor, A.S.T.M. specifications for, A (1) 18.
Tile making, modern, described, A (3) 103.
Tile, method of drying; drying board; circular supporting member, central opening, and stiffening flange on supporting member, P (8) 343.
Tile-molding machine, P (2) 63.
Tile, nonslip ceramic floor, of body of substance homogeneous throughout, formed with zones of higher density than body of tile substance, P (11) 534.
Tile plant in Czechoslovakia, description of, A (2) 68.
Tile, pottery, process of firing, by building up saggers with unfired pottery tile, P (11) 538.
Tile, roofing, clamps for, description of, A (3) 103.
importance in German architecture, A (9) 391.
water permeability of, A (10) 451.
Zoar type of, A (7) 283.
Tile, Spanish, manufacture of, A (7) 256.
standard specifications and tests for hollow fired-clay load-bearing wall, A (4) 144.
terrazzo, and method of making same, P (5) 162.
use of direct-fire biscuit kiln and muffle glost kiln for firing; description of Dressler tunnel kilns, A (7) 298.
watertight cement roofing, A (10) 425.
Tiles for gardens, A (8) 319.
meanings of colors and symbolic forms of decorative Chinese, A (12) 55.
Mexican hand-made, native charm of, A (10) 419.
of old Spain in modern apartment living room, A (12) 555.
and porcelains, decorative Chinese, A (12) 555.
roofing, pitting of at seaside; crystallization of absorbed salts, A (1) 20.
wall and floor, historical development, A (8) 352.
Time-element device, multiple electric, P (12) 598.
Timonox, use of as opacifier for enamels, A (8) 327.
Tin oxide in cassiderite; etching method for estimation and structure, A (11) 540.
substitutes for, in enamels tested, A (5) 168.
Tint of colored glazes; determination of on basis of Ostwald's color theory, A (7) 255.
Titanium, B (11) 543.
Titanium and application in the industries, A (9) 389.
Titanium carbide, chlorination of, technical report on experiments on, A (9) 388.
experimental investigation on problem of obtaining, A (9) 388.
Titanium commission, report on experimental results in chlorinating ilmenite, A (9) 388.
Titanium dioxide, review of methods for production of, A (9) 389.
or rutile and a product thereof, method of transforming, into a soluble compound, P (11) 543.
Titanium oxide, determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work; accuracy, A (12) 615.
method of obtaining, P (12) 624.
process of preparing, P (11) 544.
production of, P (3) 120.
removal of iron from titanium ores, P (10) 451.
Titanium tetrachloride, review of methods for production of, A (9) 388.
Today and Tomorrow, B (2) 86.
Tonindustrie-Kalender, 1927, B (7) 313.
Tonindustrie-Zeitung, 50 years of, A (5) 199.
Topaz, structure of, A (9) 404.
Torkret process in iron and steel works, for lining furnaces, cupolas, or ladles, A (6) 226.
Tornebohm and composition of alite, A (11) 541.
Torsional strength of various ceramic bodies, A (2) 76.
Toughness of rocks, tables of, method of determining drilling speeds, A (9) 399.
Trade-mark litigation, how to avoid, A (6) 249.
Training of ceramic personnel, A (10) 484.
Transferring designs, pictures, etc., method; composition, P (8) 322.
Transportation in brick and clay plants, methods of, A (9) 394.
Transverse strength of chemical stoneware bodies, A (9) 400.
Trass industry, demands of, A (8) 325.
Tricalcium silicate, research on hydration of dicalcium, A (5) 166.
Tridymite, structure of, and polymorphism of silicon dioxide, A (6) 246.
Trimming machine for clay blocks, P (1) 32.
Tube mills, efficiency of, A (10) 483.
Tungsten trioxide, process for production of, P (8) 353.
Tungsten-wound furnace for use to 1650°C, A (12) 606.
Tunnel kiln, air supply for fuel burners heated in flues in wall of cooling-zone, P (10) 466.
for firing ceramic ware, P (12) 610.
heating means, multiplicity of burners distributed longitudinally of the kiln, P (4) 154.
history of development, use of pulverized coal, gas, and oil, A (10) 458.
method of operating, P (12) 607.
plant, new Homer Laughlin China Co. pottery, A (4) 152.
possibilities of, for sewer pipe, A (10) 458.
semi-automatic overhead transfers feature of, A (4) 154.
Tunnel tank, new type, replaces day tank, A (5) 198.
Turbidity of opalescent glasses; apparatus for measurements, A (7) 277.
Tygart Valley Glass Co. starts its new factory at Washington, Pa., A (6) 215.

U. S. Potters Assn., report of 48th annual convention, A (2) 86, A (3) 122.
Ukraine, new glass plant, A (8) 330.
Ultramarines, artificial, structure; a relation between these and minerals hauynite, noselite, sodalite, lazurite, nephelite, A (9) 406.
Ultramicroscope, simplified slit, description of, A (3) 118.
use of, in measuring, diameters of particles of acid clay, A (10) 470.
Ultra-violet rays, protecting the eyes against, A (2) 55.
Underground clay mining, 2 systems; advantages and disadvantages of each; details incident to mining, A (12) 624.
Uranium in ceramic industry, A (6) 205.
oxide and crystals in low temperature glaze combinations; study of color and crystallization in uranium, lead, sodium, and boron glazes fired in oxidizing atmosphere, alone and with addition of certain inorganic compounds, A (11) 539.
used in ceramics, properties and uses of compounds used in ceramics, A (3) 117.
Uranyl carbonate in glass to produce fluorescent coloring, A (9) 377.
Utilization of Blast Furnace Slag in Highway Improvement, B (11) 548.

Vacuum flasks, method of production of, P (6) 221.
Valence of arsenic and antimony in glass, the, A (6) 216.
Valuation of clay and loam deposits, A (10) 468.
Valve, automatic reversing, for gas producing plants, P (12) 600.
mechanism, thermostatically controlled; thermostat and valve member operatively connected, P (12) 598.

Valves for reversing the flow of gases, P (10) 457.
Vanadium and tungsten separation, A (8) 360.
Vase, Greek, painting in red-figured style, A (5) 164.
Vases and bronzes, recent accession in the Classical Department, described, A (5) 163.
theatre, A (5) 163.
Ventilation, industrial, reference to hot, dusty trades, A (10) 482.
Viscosimeter, consisting of separated upright containers of similar configuration with upper and lower bulbous portions connected by constricted orifice, P (9) 395.
for determining viscosity of glass, A (4) 137.
Kohl's, adaptability to the refractory industry, A (1) 29.
Michell ball, mathematical theory of construction and operation, A (9) 394.
Viscosimeters for continuously indicating and recording the viscosity of a liquid, P (12) 600.
Viscosimetry, methods of, description of several types of viscosimeters, A (10) 472.
Viscosity of aqueous solutions of silicates of soda, A (7) 274.
of clay slips, effect of various sodium silicates on, effect of p_H on, A (6) 228.
of glaze suspensions and clay slips on aging and by treatment with electrolytes, changes in, A (5) 195.
simple kinetic theory of, A (7) 308.
and surface tension of aqueous solutions of potassium, soda, lithium, thallium and barium hydroxides and sodium carbonate solutions, A (10) 479.
and water content of cement slurry, changes in, A (6) 209.
Viscous properties of glass, A (6) 214.
Vita glass, description of, A (4) 137.
new window, transmission of, A (3) 99.
pertaining to transmission of, A (8) 329.
Vitreous china, simplified practice division eliminated 87% of varieties of, A (1) 30.
Vitreous enamels, effect of mill practice on working properties and finish of, A (8) 327.
study of ceramic colors and use, methods of applying colored; effect of enamel composition on color; batch formulas, A (11) 503.
Vitreous silica, process of producing, from crystal quartz by heating to 1700°C, cooling to 270°C, and fusing in vacuum, P (7) 291.
thermal conductivity over range of 70–250°C, A (9) 411.
various uses of, A (2) 66.
and vitreous quartz, applications of, A (1) 27.
Vitreous state, study of, through enforced crystallization, A (1) 37.
Vitrification of clay bodies, measuring progress of, by solubility of bodies in hot sulphuric acid, A (8) 350.
Vitrified clay products vs. concrete products, A (8) 343.
Volume determinations, apparatus for, A (6) 230.
Volumeter, new mercury, principle of operation, construction, manipulation, and calibration; advantages and disadvantages, A (12) 595.
Volumetric glass apparatus, sources of error, A (2) 52.
Vulcalock process, discussion, A (2) 70.

Wall construction, a composite wall, brick facing on outer face formed of plurality of stretcher courses between spaced header courses, P (8) 344.
Wall, fire receiving, P (6) 222.
Wall plaster, rate of drying of, A (9) 369.
Wall tile industry, economic and technical problems, A (7) 291.
Walls, construction and test of, A (5) 175.
Ware, biscuit, water-proof decoration; mixture of casein, calcined borax, dyes, and water; coating with sapon enamel, P (11) 495.
Ware-making machine, automatic, means of forcing material through a die, P (1) 31.
Washington Memorial Chapel, gets last stained glass windows, description, A (1) 4.
Washington, Pa., Tygart Valley Glass Co. starts new glass factory, A (6) 215.
Waste gases, utilization of, from glass tank; plan for reclaiming 12% of waste gases, A (3) 113.
Waste heat, utilization of, from ceramic kilns, A (10) 462.
Water, chemically combined; batch-melting experiments with batch materials containing, A (6) 213.
Water-glass, use of, in casting clay ware, A (4) 152.
Water-proof abrasive fabric, sandpaper product; fabric base and abrasive material adhesively associated with base by water-proof cellulosic coating material, P (8) 317.
Water-proof substances, process of manufacturing, from alkali silicates and acidic anhydrous inorganic matter, P (11) 501.
Water-proofing agent for cement; diatomaceous earth treated with solution of alum and soap solution which adsorbed aluminum salt of fatty acid, P (11) 501.
for cement, method of preparing, by saponification of a fatty acid with alkali solutions of sodium aluminate and nearly neutralizing by addition of resin and ammonia to the hot solution, P (11) 502.
for cement, process of manufacturing by addition of excess of quick lime to solution of washing soap and sodium silicate, P (11) 501.
for cement, process of preparing; of soap, alum, Hydrosme Rivieri, and glue, P (11) 501.
Water-proofing material, integral, U. S. Govt. Master Specifications; water-repellent type, for use with Portland cement mortar or concrete, A (7) 259.
Water-proofing paint, emulsive, P (11) 547.
Water-smoking downdraft kilns with bituminous coal, firing of kiln, A (1) 33.
Water-vacuum pump, theory of, A (10) 455.
Weather-proof coatings, application to objects of clay and similar materials by cold method, P (10) 484.
Weathering of glasses, the, A (6) 218.
Wedgwood, Josiah, and William Blake, work of, A (3) 93.
Wedgwood medallion of Priestley in white on Wedgwood blue background, A (12) 558.
Wetting adsorption, adsorption of deformable substances, A (10) 477.
Wetting and capillarity, A (7) 308.
Wheel, buffing, P (11) 489.
grinding, for grinding convoluted members, P (11) 489.
grinding; holder screwed onto externally-threaded hub portion, P (11) 490.
sectional grinding, P (11) 490.
Whetstone, method of manufacturing, P (11) 491.
White-firing clays of the Eastern U. S., ceramic properties of, elutriation, microscopic examination, drying and firing properties, effect of these clays on porcelain bodies, A (10) 466.
White glazes and enamels without tin oxide, preparation of, formulas, A (8) 322.
White ware, prevention of ceramic defects in casting, A (5) 199.
White ware bodies, effect of various forms of silicic acid on, physical properties determination on bodies containing various forms of silicic acid, A (6) 229.
some, developed at Ohio State Univ., A (5) 184.
study on porosity and vitrification of, during firing, A (1) 28.
White ware, discussion of bodies and glazes, A (10) 453.
Division of AMERICAN CERAMIC SOCIETY papers presented at Detroit Meeting, A (5) 197.
industry, economic and technical problems confronting various branches of, A (7) 291.
investigations, at Columbus Branch of Bureau of Standards, A (5) 199.
Whiting, manufacture of, A (3) 117.
Wiener Werkstatte and Austrian industry; work in supplying designs for manufacture of glass ware and pottery, A (2) 49.
Willets Co., manufacturers of glass pots for 57 years, history, A (5) 180.
Willow-pattern plate, story of, A (2) 48.

Willow ware design, note on, A (12) 557.
Window glass, bloom on, cause of, A (10) 435.
machines; clay shapes for; service requirements for the Lubbers, Colburn, and Fourcault machines, A (12) 586.
Wine glass, romantic history and development through centuries, A (12) 625.
Wire cloth for test sieves, (German), A (6) 231.
Wire glass, modern methods used in manufacture, A (1) 14.
Wire screens, proposed British standard table, A (1) 31.
Wolverine Porcelain Enameling Co., description of plant of, A (5) 195.
Wood, use of in firing ceramic kilns, heat-balance study, A (12) 601.
Wurttemburg State Technical School in Stuttgart, ceramic division in, courses and equipment, A (8) 363.

X-ray analysis of clays, means of determining relation between particle size and cohesive properties of clay, A (7) 309.
X-ray diffraction measurements on compounds in study of Portland cement, A (9) 369.
measurements in system soda-lime-silica, A (2) 75.
X-ray patterns of mullite and sillimanite, note on, A (6) 223.
X-ray study of limestone calcination, A (9) 370.
of magnesium-oxychloride cement, A (7) 262.
X-ray work on aluminum silicates, A (7) 303.
X-rays, Applied, B (5) 194.
and fluorescent rays, application to study of white wares, A (8) 352.
some technical uses of, A (5) 190.

Zeolite formation in soils, A (12) 621.
Zeolites, precipitated, manufacture of, P (12) 623.
and related minerals from Lake Nipigon, Ont., A (3) 115.
Zettlitz kaolin in Czechoslovakia, properties enumerated, 2 types prepared, chemical analyses, thermal changes, plasticity values determined by numerous methods, fusion points, A (1) 34.
Zinc industry, refractories for, A (8) 344.
Zinc oxide, effect of, on tone of colored enamels, A (11) 503.
Zinc oxide-silica system, immiscibility in, A (4) 157.
Zinc, recovery of, from any source, to make zinc sulphide, sodium zincate, zinc oxide, and lithopone, P (10) 481.
Zircalite, new preventive against destruction of furnace linings, A (5) 182.
used to paint brick work and exposed iron piping in open-hearth furnaces, A (5) 177.
Zirconia brick for electric resistance furnace, properties of, A (10) 447.
thermal expansion over interval 25 to 1400°C, A (10) 449.
Zirconia, glasses containing, effect of on properties of glasses, A (9) 376.
in glasses, use for, to cause viscosity of glasses intended for absorbing X-rays or rays of short wave-length to increase more rapidly with fall in temperature, P (12) 585.
Zirconium chromate, hydrolysis of, A (5) 192.
Zirconium compound, acid soluble, fusing ore with partial expulsion of silica, mixing and heating resulting product with sulphuric acid at temperature between 350° and 450°C, P (5) 194.
method of making, recovery of zirconia from ores, A (2) 67.
Zirconium glasses, analysis of, A (1) 13.
Zirconium and hafnium phosphates, process for dissolving a mixture of, and for separating hafnium and zirconium, P (10) 480.
Zirconium oxide and carbon, the equilibrium between, and their reaction products at incandescent temperatures, A (4) 156.
determination of, in soda-lime glass; methods used at Bureau of Standards; those recommended for routine work, accuracy, A (12) 615.
pure, manufacture of refractory articles, P (5) 183.
refractory substances containing, process of manufacture, P (3) 108.
silica composite and method of making same, P (5) 194.
Zirconium refractories, properties of, A (7) 289.
Zirconium, separation of, from titanium, A (3) 119.
Zirconium sulphate, basic potassium, making; adding alkali to solution of normal zirconium sulphate, treating with potassium sulphate, and separating precipitate formed, P (5) 194.
Zirkallit, preparation of zirconium earth used next to refractories against the corrosive influences of furnace atmosphere, A (6) 224.

AUTHOR INDEX TO BULLETIN

The reference number in parentheses refers to the *monthly* issue of the ***Bulletin***; the number following this is the page number. The letters O, D, or E preceding reference numbers indicate that the article is from an Original Paper (O), a Discussion (D), or an Editorial (E).

Volume 6, 1927

Adderson, J. G. Clay mining, O (7) 201–202.
Anderson, T. B. Conference on ceramic research, D (4) 91; Officers of Ohio Ceramic Industries Assn.; Photo, (1) 43.

Bailey, H. T. Need of school of ceramic design in Ohio, O (5) 142–43.
Barringer, L. E. Conference on ceramic research, D (4) 88.
Benson, S. Letter; Ceramists' Tour Abroad, (12) 371.
Bentley, L. L. In memoriam; photo, (2) 63.
Binns, C. F. Medal, (3) 77.
Blair, M. W. Conference on ceramic research, D (4) 92; Symposium on ceramic education, (11) 352.
Bleininger, A. V. Sagger symposium, D (7) 192, 193.
Bole, G. A. Symposium on ceramic education, (11) 354.
Bowman, O. O. In Memoriam, photo, (4) 107.
Bryan, C. H. Obituary; photo, (7) 217–18.
Butterworth, W. Ceramists' Tour Abroad; president, Society of Glass Technology. (10) 314.
Byrnes, A. M. Coöperative shop, equipment and organization, O (1) 13–17.

Champion, A. Obituary, photo, (12) 373.
Clare, R. L. Presidential address, E (3) 67–69.
Cook, C. H. In memoriam, photo, (2) 61.
Cook, M. E. Vital phases of constructive work in clay, O (2) 48–53.
Cooke, R. D. Bringing research up to date, O (8) 227–31.
Cox, P. E. Symposium on ceramic education, (11) 345.
Creange, H. Quantity production in art industries, O (1) 26–30.
Curtis, E. DeF. The small shop, O (1) 17–22; Publicity, O (1) 22–24.

Dalgas. Survey of the Royal Copenhagen Porcelain Works, O (5) 137–42.
Daniels, J. Notes on clay mining, O (7) 204–205.
Denison, G. W. Trustee; photo, (3) 71.
Doll, C. E. Sagger symposium, D (7) 194.

Eckert, F. Concerning new problems in production of commercial glasses; mechanical homogeneizing and correct heat treatment history, O (10) 306–308.
Edwards, O. K. Firing "hogged fuel" in continuous chamber brick kiln, O (7) 195–97.

Ferrari, C. Obituary, (9) 295.
Fieldner, A. C. Superintendent of Bureau of mines; sketch; photo, (8) 247–48.
Forst, D. P. Chairman on arrangements, Atlantic City Meeting. 1928; photo, 10 (313).
Fosdick, M. L. Report on collection from the *Transactions* and *Journals* of interest to pottercraftsmen, O (1) 10–12.
Fraunfelter, C. D. In memoriam; photo, (2) 60.
French, M. M. Charting the field for the artist craftsman, O (1) 8–10.
Fritz, E. H. Sagger symposium; notes on sagger bodies, D (7), 183, 185, 187–94.

Glass Division, Standards Committee. Tentative method for complete sand analysis, (7) 211–13.
Greaves-Walker, A. F. Conference on Ceramic Research, D (4) 84, 90, 92, 94, 96; Symposium on ceramic education, (11) 346, 350.

Hall, T. Firebrick problems, Joel, Idaho Fire Clay pit, O (7) 199–201.
Harby, J. M. Clay washing, O (7) 197–99.
Harkort, H. Letter, Ceramists' Tour Abroad, (12) 370.
Hirsch, H. Letter, Ceramists' Tour Abroad, (12) 370.
Holmes, F. G. Advantage of good design in table ware, O (7) 181–83; Wins medal (photo), (8) 246.
Holland, J. English hosts to American ceramists; photo, E (11) 339.
Hood, B. M. Conference on ceramic research, D (4) 90; Symposium on ceramic education, (11) 348.
Hoover, H. The nation and science, E (7) 175–79.
Hottinger, A. H. Soluble salts and their application to terra cotta, O (11) 341–42.

Ianelli, A. Created ceramics, O (1) 36–39.

Johnston, H. J. Letter, Ceramists' Tour Abroad, (12) 370.
Judge, F. P., Jr. Need for research and education in dinnerware branch of ceramic industry, O (11) 34–36.
Justice, I. M. Obituary, (8) 244.

Klein, G. Sagger symposium, D (7) 193.
Knowles, W. V. Control testing of borax and soda ash stocks used in smelting of enamel frits, O (5) 132–34.
Kupfer, W. S. Obituary, (1) 43.

Landrum, R. D Conference on ceramic research, D (4) 88; Necessity for operating standards and procedure control in enameling industry, O (5) 121–32.
Lemley, W. E. Mining shale for sewer pipe, O (7) 202–204.

McAfee, W. K. Sagger symposium, D (7) 190, 193. Symposium on ceramic education, (11) 342, 347, 353, 354, 359.
McBerty, R. K. Symposium on ceramic education, (11) 348.
Meeker, R. C. Sagger symposium, D (7) 187.
Mellor, J. W. English hosts to American ceramists, photo, E (11) 338; Photo with F. J. West and R. C. Purdy, (11) 337; Letter; Ceramists' Tour Abroad, (12) 370.
Millar, C. A. Use and abuse of power in heavy clay products plants, O (5) 134–36.
Montgomery, H. G. English hosts to American ceramists, photo, E (11) 340.
Montgomery, R. J. Conference on ceramic research, D (4) 94; Symposium on ceramic education, (11) 353.
Moore, J. S. Obituary, (2) 62.
Moriss, P. G. B. Ceramists' Tour Abroad, director; photo, (9) 287.
Mueller, F. B. Obituary, (9) 295
Mulderiji, H. Letter; Ceramists' Tour Abroad, (12) 369.
Murphy, J. L. Officers of Ohio Ceramic Industries Assn; photo, (1) 43.

Navias, L. Symposium on ceramic education, (11) 345, 349.

Orton, M. A. Obituary; photo, (8) 245.

Parmelee, C. W. Sagger symposium, D (7) 191; Symposium on ceramic education, (11) 350.

Peck, A. B. The rôle of the ceramic petrographer (brief review of development of ceramic petrography), E (10) 297–305.
Peer, A. R. Construction, making, and care of filter-press cloths, O (9) 284–86.
Purdy, R. C. Conference on ceramic research, D (4) 84, 89, 94; Honored at Canadian Meeting, (3) 76; Photo with F. J. West and J. W. Mellor, (11) 337; Symposium on ceramic education, (11) 343, 345, 346, 348, 353, 354.

Rees, W. J. English hosts to American ceramists; photo, E (11) 338.
Rieke, R. Letter; Ceramists' Tour Abroad, (12) 370.
Ross, D. W. Discussion on glass industries refractories, (7) 215–16.

Schramm, E. Sagger symposium, D (7) 189.
Sebring, G. Obituary, (2) 60.
Sessions, W. Letter; Ceramists' Tour Abroad, (12) 371.
Shaw, J. B. Conference on ceramic research, D (4) 93; Sagger symposium, D (7) 192, 194; Symposium on ceramic education, (11) 354.
Sheerer, M. G. Art-in-Trade Movement, O (9) 256–58; Circulating library, O (1) 12–13; Commissioner's Report on International Art Exhibition, (1) 4; Training Necessary for Artist Craftsman, O (1) 5–8.
Silverman, A. Symposium on ceramic education, (11) 351.
Simcoe, G. Sagger symposium, D (7) 191.
Smith, K. M. Sagger symposium, D (7) 185.
Smith, M. S. C. Near East pottery O (1) 31–32
Sortwell, H. H. Obituary; photo, (9) 294–95.
Spencer, H. R. Economic trend of enameling business, O (9) 281–83.
Staley, H. F. Symposium on ceramic education, (11) 355.
Stover, E. C. Obituary, (8) 244.

Thomas, L. M. Obituary (6) 173.
Turner, S. Romance marks life of (photo), (10) 325–27.
Turner, W. E. S. English hosts to American ceramists, photo, E (11) 339.

Vaughan, W. H. Sagger symposium, D (7) 185, 191, 194.
Vevers, E. G. English hosts to American ceramists, photo, E (11) 340.

Watts, A. S. Symposium on ceramic education, (11) 345, 358.
Weaver, J. C. History and improvement of furnace bars, O (10) 308
Weimer L. S. Apparatus that has improved enamel, O (8) 233–234.
West, F. J., Mellor, J. W., and Purdy, R. C. English hosts to American ceramists; photo, E (11) 337.
Whitaker, F. A. Letter; Ceramists' Tour Abroad, (12) 368.
Whitmer, J. D. Sagger symposium, D (7) 186–93.
Wills, S. A. Consumption of power in heavy clay products industry, O (8) 235–38.
Woolson, I. H. Obituary, (6) 173

Yeatman, L. Letter; Ceramists' Tour Abroad, (12) 369.

SUBJECT INDEX TO BULLETIN

Advertising record for the *Journal of the American Ceramic Society* from 1922–26 inc., (4) 109.
Aging and storage of wet enamel, O (5) 130.
Alumina, determination of in sand analysis, (7) 213.
American Ceramic Research Council proposed, (4) 89.
American china, term defined, (4) 98.
American industrial porcelain, term defined, (4) 99.
American Refractories Inst., list of publications of, (10) 329.
meeting, (4) 112.
meeting Dec. 6–7, 1927, at St. Louis, list of papers presented, (12) 378.
Analysis of glasses, critical survey of methods in use, (4) 115.
of refractories, methods in use, (4) 115.
of silicate slags, methods in use, (4) 116.
Annealing temperatures of some soda-lime oxide glasses, (5) 160.
Annual Meeting (1927) of the SOCIETY; financial report, (2) 54.
Apparatus that has improved our enamel, mechanical mixer, O (8) 233.
Architecture, terra cotta, defects, types of crazing, (2) 59.
Art Division, report of; committees, (1) 4.
Art exhibit at Detroit, Feb., 1927; report of chairman of Exhibition Committee, of Art Division, (4) 108.
exposition, report on international, (1) 4, (1) 24.
industries, quantity production in, O (1) 26.
medals presented by Architectural league of N.Y. (5) 156.
Art porcelain, term defined, (4) 99.
Artificial porcelains, classified and defined, (4) 98.
Artist craftsman, charting field of opportunity for, O (1) 8..
Artistic design in table ware, O (7) 181.

Ball clay, permissible moisture content in, report of special committee of AMERICAN CERAMIC SOCIETY, (4) 100.
Batch, enamel, weighing the, O (5) 126.
Bauxite, standard samples prepared by Bureau of Standards, (5) 147.
Belleek china, term defined, (4) 99.
Binns, Charles F., medal, presented to M. L. Fosdick, (3) 77.
Birmingham glass trade, (12) 379.
Bone china, term defined, (4) 98
Borax, control of in making enamel frits, O (5) 124.
control testing of, O (5) 132.
Boric oxide containing glasses, thermal expansion of some, (4) 115.
Bottle glass, decolorized, detection of selenium in, (12) 379.
Bottle machine, new British 15-arm automatic suction, (7) 225.
Brick kiln, firing "hogged fuel" in continuous chamber, O (7) 195.
Brick Manufacturers Assn. studies drying conditions in commercial driers, (8) 250.
Brittleness, impact, and crystal growth, (12) 379.
of opal glass, (7) 225.
Bureau of Standards, standard sample of bauxite, feldspar, fired refractories, soda-lime glasses; list of laboratories equipped to make thermal expansion tests, (5) 157.

Carborundum, motion picture describes, (5) 156.
Cast iron, blistering of, for enameling purposes; report of Research Committee of Enamel Division, (10) 316.
investigations of, by Research Committee of the Enamel Division, (5) 147.
Ceramic art, education, proposals for, by Educational Committee of AMERICAN CERAMIC SOCIETY, D (11) 342.
possibility of craftsman's entry into field of, (1) 4.
publicity as means of increasing interest in, O (1) 22.
Ceramic Council, plans and organization of, (10) 316.
Ceramic education, D (8) 238.
symposium on, under Educational Committee of the AMERICAN CERAMIC SOCIETY, D (11) 342.
Ceramic petrography, development of fundamental importance of microstructure, E (10) 297.
Ceramic research, conference on, D (4) 84.
Council, D (4) 84.
Council proposed, (1) 1.
fellowships, Univ. of Wash., Univ. of Ill., Ohio State Univ., Stanford Univ., problems to be investigated at these institutions, (7) 219.
notes from various, (8) 248, (10) 327, (11) 362, 12 (375).
Ceramic terms, list of general, defined by Standards Committee of White Wares Division, (4) 97.
Ceramics, created, O (1) 34.
Ceramists' Tour Abroad, (9) 287.
English hosts to American ceramists, E (11) 337.
Invitations by leading European ceramists to American ceramists to visit European ceramic centers, (10) 313.
Points of interest to be visited in France, Germany, Czechoslovakia, Holland, England, invitations of various European companies and Societies to visit their plants, E (12) 365.
Chemical analysis of ceramic materials for iron by use of electrometric method, (4) 100.
of refractories, methods in use, (4) 115.
of sand, method of Standards Committee of the Glass Division, (10) 321.
of sand, tentative method, Glass Division, (7) 211.
Clay, control of in making enamel frits, O (5) 26.
of silicate slags, methods in use, (4) 116.
of the simple glasses; critical survey of methods in use, (4) 115.
Chemical porcelain, term defined, (4) 98.
China, bone, Belleek, Jasper, Wedgwood, French paste; terms defined, (4) 99.
China, term defined, (4) 98.
Circulating library, O (1) 12.
Clasticity and plasticity, E (7) 179.
Clay fire brick, specifications for, (5) 144.
industries, research in, (5) 158.
mining, O (7) 201.
used in the small shop, (1) 18.
ware, firing of, (5) 159.
washing, O (7) 197.
vital phases of constructive work in, O (2) 48.
Commercial glasses, new problems in production of; problems caused by use of machine methods effect of excess temperature on glass quality, O (10) 306.
Cone deformation test as applied to enamels, accuracy of, (9) 264.
Conference on ceramic research, D (4) 84.
Control procedure in enameling industry; necessity for operating standards and, O (5) 121.
Cooperative shop, its equipment and organization, O (1) 13.
Copenhagen Porcelain Works, Royal, history of, directors of, development of ceramics in, O (5) 137.
Craftsman, artist, charting field of opportunity for, O (1) 8.
pottery, training necessary for, O (1) 5.
Crazing of terra cotta, 2 types described, (2) 59.
Created ceramics, O (1) 34.
Cross-bending test for sheet-iron enamel; the Lindemann-Danielson, (9) 277.
Crystal growth and impact brittleness, (12) 379.
Crystalline glazes, exhibit at executive offices of the AMERICAN CERAMIC SOCIETY, (1) 33.
Crystallization, devitrification and solid solutions, E (6) 168.
forced, method of used to investigate the glassy state, (4) 113.
Cullet, effect of, on melting of glass, and on working of glass; cause of change in working ppertiesor of glass, (4) 113.

Curriculum, ceramic technology, of Univ. of Mo. School of Mines and Metallurgy, (11) 362.
Czechoslovakia, points of interest in, to be visited by American ceramists on European tour, E (12) 266.

Denison, G. W., Trustee of the Heavy Clay Products Division of the AMERICAN CERAMIC SOCIETY, (3) 71.
Design of parison molds, note on, (2) 64.
in table ware, advantage of good, O (7) 181.
Determination of iron as Fe_2O_3 in glass sands by electrometric method, (4) 104.
Devitrification, crystallization and solid solutions, (6) 168.
Diaspor clay defined, (5) 145.
Dinnerware branch of ceramic industry; need for research and education in, O (1) 34.
Durability of some soda-lime-magnesia glasses, powder method used, (4) 113.

Earthen ware, term defined, (4) 98.
Editorials, Ceramic Research Council and Institute, (5) 117.
Bringing research up-to-date, (8) 227.
"Art-in-trade" movement, (9) 256.
Ceramists' tour abroad, (12) 365.
Coöperation that counts, (9) 253.
English hosts to American ceramists; itinerary of European trip of the AMERICAN CERAMIC SOCIETY, (11) 337.
Federal and state support of experiment stations, (2) 45.
The industries profit most which demand most from the universities, (9) 254.
The nation and science, (7) 175.
Presidential address, R. L. Clare, (3) 67.
Relation of composition and heat treatment to industrial properties of ceramic products, (6) 163.
Report of General Secretary, 1926–27, (4) 79.
The rôle of ceramic petrographer, review of development of ceramic petrography, factors influencing microstructure, (10) 297.
Unit organization for ceramists for research promotion, (1) 1.
Education, ceramic, symposium on, under Educational Committee of the AMERICAN CERAMIC SOCIETY, O (11) 342.
Electrometric determination of iron; method, procedure, calculation, (4) 100.
Enamel business, economic trend of, O (9) 281.
deformation temperature of tentative method for, (9) 263.
Enamel Division, Committee on Standards, report of, (9) 259.
progress report of the Research Committee of, on blistering of cast iron for enameling purposes, (10) 316.
Research Committee, report of, (5) 147.
Enamel frit, raw materials for, divided into 3 classes depending on purity and whether affected by, atmospheric conditions, O (5) 124.
preparation of, for application, O (5) 130.
report of the committee on use of word "enamel," (4) 100.
slips, controlling consistency of, (9) 259.
wet milled, tentative method for fineness of, (9) 263.
Enamelers' Training Course given by Ferro Enameling Company of Cleveland, (12) 377.
Enameling industry, necessity for operating standards and procedure control in, O (5) 121.
Enamels, drying and firing of, O (5) 131.
flotation of, (9) 259.
for steel, relation of composition to ground-coat defects in, (2) 59.
England, points of interest in, to be visited by American ceramists in European tour, (21) 367
European tour of American ceramists, (9) 287.
of American ceramists, itinerary, (7) 207.
of American ceramists; points of interest to be visited in France, Germany, Czechoslovakia, Holland, England; invitations of various European companies and societies to visit their plants, E (12) 356.

Exhibit, permanent, at SOCIETY'S executive, offices of crystalline glazes cone 11 porcelain, (1) 33.
Exhibition Committee of the Art Division; report of the chairman of; exhibition of ceramic art ware displayed at Arts and Crafts Club, Detroit meeting of the AMERICAN CERAMIC SOCIETY; list of exhibitors, (4) 108.

Face brick, N. C. buff and gray, manufactured for first time, (10) 328.
Feldspar, control of in making enamel frits, O (5) 124.
standard samples prepared by Bureau of Standards, (5) 157.
Fieldner, A. C., superintendent of the Bureau of Mines stations, (8) 247.
Filter-press cloths, construction, making, and care of, O (9) 284.
Financial report of the SOCIETY, (2) 54.
Fineness tests on enamels compared, (9) 270.
Firebrick problems, O (7) 199.
Fire clay, U. S. Govt. Specifications for, (5) 145.
brick test for resistance of, to spalling action, (5) 145.
Firing "hogged fuel" in continuous chamber brick kiln, O (7) 195.
Flint fire clay defined, (5) 145.
Fosdick, M. L. awarded Charles F. Binns medal, (3) 77.
France, points of interest in, to be visited by American ceramists on European tour, E (12) 266.
enamel, control testing of borax and soda-ash stocks used in smelting of, O (5) 132.
enamel, raw materials for, O (5) 121.
Furnace developments, brief review of, (7) 224.
Furnaces, recuperative glass, some further developments in, (5) 160.

General Ceramic Co., invitations of, to American ceramists to visit their European plant, E (12) 368.
German Ceramic Society, announcement, (4) 112.
Germany, points of interest in, to be visited by American ceramists on European tour, E (12) 367.
present position of glass industry in, (4) 114.
Glass, decolorized bottle, detection of selenium in, (12) 379.
decomposition of, by water at high temperatures and pressures, (7) 224.
Glass Division, Report of Standards Committee on the method for complete sand analysis, (10) 321.
Glass furnaces, recuperative, some further developments in, (5) 160.
industries refractories, D (7) 215.
industry in Germany, present position of, (4) 114.
industry in Russia, developments in, (4) 114.
melting of, effect of cullet on, and on the working of glass; cause of change in working properties of glass, (4) 113.
opal, brittleness of, (7) 225.
opal, crystal growth and impact brittleness, (12) 379.
sands, determination of iron in, by use of electrometric method, (4) 104.
soda-lime, standard samples prepared by Bureau of Standards, (5) 157.
trade of Birmingham, England, (12) 379.
works refractory, note on sillimanite as a, (2) 62.
Glasses, commercial, new problems in production of; problems caused to arise by use of machine methods discussed; effect of excess temperature on glass quality, O (10) 306.
containing boric oxide, thermal expansions of some, (4) 115.
simple, critical survey of methods in use for chemical analysis of, (4) 115.
soda-lead oxide, properties of, annealing temperature, thermal expansion, action of boiling water on, (5) 160.

Glassy, soda-lime-magnesia, durability of some, powder method used, (4) 113.
state investigation of, by method of forced crystallization, (4) 113.
Ground coat defects in enamels; relation of composition to, (2) 59.

Hard porcelain, term defined, (4) 98.
Hetsch, G., work of, at Royal Copenhagen Porcelain Works, O (5) 138.
Heavy clay products industry, consumption of power in, O (8) 235.
plants, use and abuse of power in, O (5) 134.
High fire porcelain, term defined, (4) 98.
Holland, points of interest in, to be visited by American ceramists on European tour, E (12) 367.
Holmes, F. G., awarded Craftsmanship Medal for distinguished achievement in ceramic art, (8) 246.

Impact brittleness and crystal growth, (12) 379.
Incipient vitrification (ceramic) term defined, (4) 97.
Industrial ceramic art, plea for establishment of school of ceramic art, (7) 214.
porcelain, term defined, (4) 98.
Iowa Clay Products Mfgrs. Assn., (2) 63.
Iron, determination of in sand analysis, (7) 212.
determination of, by use of electrometric method, (4) 100.

Jasper or Wedgwood china, term defined, (4) 99.

Kiln, continuous chamber brick, firing "hogged fuel" in, O (7) 195.
open-flame, used in small shop, (1) 18.
Kilns, construction of, improvements in design of, (5) 159.
Krog, A. work of, at Royal Copenhagen Porcelain Works, O (5) 138.

Laboratories equipped to make thermal expansion tests, (5) 157.
L'Ecole National D'art Decoratif de Limoges, O (2) 48.
Library, circulating ceramic, O (1) 12.
Lime, determination of in sand analysis, (7) 212.
Low fire, term defined, (4) 98.

Macrostructure of refractories, some corrosion and erosion phenomena; their bearing on the, (2) 63.
Magnesia, determination of in sand analysis, (7) 212.
Malinowski, A., work of, at Royal Copenhagen Porcelain Works, O (5) 138.
Maturing temperature (ceramic), term defined, (4) 97.
Mechanical mixer for mixing batch materials for enamel frits, O (8) 233.
Medal, Charles F. Binns, awarded to M. L. Fosdick, (3) 77.
Meeting of AMERICAN CERAMIC SOCIETY, (8) 241.
decisions made at Detroit meeting, (3) 70.
1928 annual, (10) 309.
Meeting, American Refractories Inst., St Louis, Dec. 6–7, 1927; list of papers, (12) 377.
of Fuels Division of the A.S.M.E., (10) 329.
Iowa Clay Products Mfgrs. Assn., (2) 63.
Ohio Ceramic Industries Assn. at Columbus, Nov. 18–19, 1927; list of papers presented, (12) 378.
for organizing a Ceramic Council, (10) 316.
of Pacific Northwest Clayworkers' Assn., annual (2) 62.
Melting of glass, effect of cullet on, and on working of glass, cause of change in working properties of glass, (4) 113.
Microscope, the, as a research tool, E (8) 228.
Microstructure of ceramic products, factors influencing, E (10) 297.
Milling of enamels, control of, O (5) 128.
Mining, clay, notes on, O (7) 204.
Missouri School of Mines, ceramic technology curriculum, (11) 362.
Moisture content, permissible, in ball clays, (4) 100.
Molds, parison, note on design of, (2) 64.
Muller, F. H. work of at the Royal Copenhagen Porcelain Works, O (5) 137.
Mullite and sillimanite; note on X-ray patterns of, (2) 64.

National Ceramic Research Council proposed, (1) 1.
Near East pottery, O (1) 31.
News from members of the SOCIETY, (1) 42, (2) 58, (3) 75, (4) 106, (7) 210, (8) 243, (10) 315, (11) 361, (12) 372.
Nielsen, J., work of, at the Royal Copenhagen Porcelain Works, O (5) 140.
Nodular fire clay defined, (5) 145.
North Carolina buff and gray face brick, manufactured for first time, (10) 328.
State student branch of AMERICAN CERAMIC SOCIETY, report on (4) 109.

Obituary, Bentley, L. L., (2) 62.
Bowman, O. O. (4) 107.
Bryan, C. H., (7) 217.
Champion, A., (12) 373.
Cook, C. H., (2) 61.
Ferrari, C., (9) 295.
Fraunfelter, C. D., (2) 60.
Kupfer, W. S., (1) 43.
Moore, J. S., (2) 63.
Muller, F. B. (9) 295.
Orton, M. A., (8) 245.
Sebring, G., (2) 60.
Sortwell, H. H., (9) 294.
Stover, E. C., (8) 244.
Thomas, L. M., (6) 173.
Woolson, I. H., (6) 173.
Officers of the AMERICAN CERAMIC SOCIETY for 1927–28, (3) 70.
Ohio Ceramic Industries Assn., meeting at Columbus Nov. 18–19, 1927; list of papers presented, (12) 378.
officers of, (1) 43.
spring meeting of, (5) 161.
Ohio State Univ., short course in ceramics at; list of lectures in refractories, heavy clay products, and white wares; list of students registered, (12) 376.
Opacity of enamels, determination of, (9)260.
Opal glass, brittleness of, (7) 225.
crystal growth and impact brittleness, (12) 379.

Pacific Northwest Clayworkers' Assn., annual meeting of, (2) 62.
Parison molds, notes on design of, (2) 64.
Paving brick, varieties of, increased, (5) 154.
Personal notes of members. (1) 42, (2) 58, (3) 75, (4) 106, (7) 210, (8) 243, (10) 315, (11) 361, (12) 372.
Petrography, ceramic, development of, fundamental importance of microstructure, E (10) 297.
Pickling, time necessary for thorough, O (5) 123.
Plastic or bond clay defined, (5) 145.
Plastic fireclay refractories, U. S. Govt. Specification No. 335, a revised, (5) 145.
fire clay, U. S. Govt. Specifications for, (5) 145.
Plasticity and elasticity, E (7) 179.
Porcelain, application of, to electrical apparatus, (5) 155.
-china, differentiation of, classification, (4) 97.
Porcelain, term defined, (4) 97, 98.
Porcelain Works, Royal Copenhagen, survey of; history, directors of, methods developed, O (5) 137.
Porcelains, high fire or hard, low fire or soft, industrial, art, chemical, service, Seger, and American porcelains defined, (4) 99.
Pore (ceramic), term defined, (4) 97.
Potter-craftsman, report on collection from the *Transactions* and *Journals* of interest to, O (1) 10.
training necessary for, O (1) 5.
Pottery, Near East, O (1) 31.
Power in heavy clay products industry, consumption of, O (8) 235.

in heavy clay products plants, use and abuse of, O (5) 134.
Problems in production of commercial glasses, causes by use of machines, methods; effect of excess temperature on glass quality, O (10) 306.
Publicity, as means of increasing interest in ceramic art, O (1) 22.
Purdy, R. C., honored at meeting of Canadian Clay Products Assn., (3) 76.
Pyrometric cone equivalent, term defined, (5) 145.

Recuperative glass furnaces, some further developments in, (5) 160.
Refractories, chemical analysis of; methods in use, (4) 115.
discussion on glass industries, O (7) 215.
Refractories Division, report of chairman of, (5) 150.
Refractories fired, standard samples prepared by Bureau of Standards, (5) 157.
in the glass industry, (5) 156.
Institute, American, list of publications of, (10) 329.
macrostructure of, some corrosion and erosion phenomena and their bearing on the, (2) 63.
Refractory, glass works, note on sillimanite as a, (2) 62.
Report on International Art Exposition, (1) 4, (1) 24.
Research Committee of the Enamel Division, report of, (5) 147.
Research Fellowships in coal and nonmetallics, (6) 173.
Research, need for, in dinnerware branch of ceramic industry, O (1) 34.
R_2O_3, determination of in sand analysis, (7) 211.
Royal Copenhagen Porcelain Works, history, directors of, development of ceramics in, O (5) 137.
Russia, developments in the glass industry in, (4) 114.

Sagger symposium, D (7) 181.
comments on cast saggers, D (7) 193.
cost of operating sagger department, D (7) 185.
effect of proportions of several clays used in sagger mix, D (7) 188.
figures on sagger life, D (7) 185.
method of making, D (7) 190.
modulus of rupture, shrinkage, and absorption after 14 firings, D (7) 187.
notes on sagger bodies, D (7) 183.
number of firings obtained, D (7) 187.
quenching, spalling, flaking, D (7) 191.
questions and answers, D (7) 183.
rate of cooling, effect of, D (7) 191.
sagger-clay preparation, D (7) 189.
shape of saggers, D (7) 186.
size of grog, D (7) 185.
size of saggers, D (7) 186.
spalling, D (7) 190.
use of Colonial clay in saggers, D (7) 194.
use of wet pan in preparing, D (7) 192.
Sand, chemical analysis of, tentative method, (7) 211.
School of ceramic design in Ohio, need of, (5) 142.
Schou, P., work of, at Royal Copenhagen Porcelain works, O (5) 138.
Science and local industries, (5) 158.
Section meetings, Baltimore-Washington, (2) 59, (7) 215, (10) 324, (11) 362.
California, (9) 294, (10) 324, (12) 373.
Chicago, (10) 324.
Detroit, (7) 215.
Northern Ohio, (11) 362.
Pacific Northwest, (3) 75, (7) 214, (9) 294.
Pittsburg, (7) 215, (2) 58, (5) 155, (12) 373.
St. Louis, (4) 110, (10) 325, (12) 373.
Seger porcelain, term defined, (4) 99.
Selenium, detection of in decolorized bottle glass, (12) 379.
Service porcelain, term defined, (4) 98.
Setting test for wet milled enamels, study of, (9) 272.
Sewer pipe, mining shale for, O (7) 202.
Shale, mining, for sewer pipe, O (7) 202.
Sheet-iron enamel, investigation of the Lindeman-Danielson cross-bending test for, (9) 277.
Shop, coöperative equipment and organization, O (1) 13.
the small, equipment for, O (1) 17.
Sieve and settling test for fineness of milled enamel, compared, (9) 270.
test for wet milled enamels, study of, (9) 272.
Silica, determination in sand analysis, (7) 213.
Silicate slags, chemical analysis of, methods in use, (4) 116.
Silicon-carbide refractories, manufacture and application of, (7) 215.
Sillimanite as glass works refractory, note on, (2) 62.
and mullite, note on X-ray patterns of, (2) 64.
Slags, silicate, methods in use for chemical analysis of, (4) 116.
Slip control, enamel, (9) 259.
Small shop, equipment for, O (1) 17.
Smelting the enamel batch, control of operations, O (5) 127.
Society of Glass Technology, meeting, December 15, 1926; topics, (1) Further note on sillimanite as a glass works refractory; (2) Some corrosion and erosion phenomena and their bearing on macrostructure of refractories, (3) Note on X-ray patterns of mullite and sillimanite, (4) Note on design of parison molds, (2) 63.
January, 18, 1927; topics, (1) Effect of cullet on the melting of glass, (2) Investigation of the glassy state by method of forced crystallization, (3) Durability of some soda-lime-magnesia glasses, (4) Present position of glass industry in Germany, (5) Developments of glass industry in Russia, (4) 113.
February 16, 1927; topics, (1) Critical survey of methods in use for analysis of simple glasses, (2) Notes on methods used in analysis of glasses, (3) Analysis of refractories, (4) Notes on analysis of silicate slags, (4) 115.
March 16, 1927; topics, (1) Some further developments in recuperative glass furnaces, (2) Properties of some soda-lead oxide glasses, (5) 160.
April 27, 1927; topics, (1) Brief review of furnace developments, (7) 223.
May 18, 1927; topics, (1) Decomposition of glass by water at high temperatures and pressures, (2) Brittleness of opal glass, (3) New British 15-arm automatic suction bottle machine, (7) 224.
October 19, 1927; topics, (1) Opal glass, crystal growth and impact brittleness, (2) Detection of selenium in decolorized bottle glass, (3) Birmingham glass trade, (12) 379.
Soda-ash, control of in making enamel frits, O (5) 124.
control testing of, O (5) 132.
Soda-lead oxide glasses, properties of, annealing temperature, thermal expansion, action of boiling water on, (5) 160.
Soda-lime-magnesia glasses, durability of some powder method used, (4) 113.
Soft porcelain, term defined, (4) 98.
Solid solutions, crystallization and devitrification, E (6) 168.
Soluble salts, their application to terra cotta, O (11) 341.
Spalling, definition of, (5) 144.
Specifications for plastic fireclay refractories, U. S. Govt. Specifications No. 335, revised, (5) 145.
Standards Committee of White Wares Division report of, on definition of ceramic terms, (4) 97.
report of Committee on, revision of 1921-22 standards, (5) 144.
in enameling industry, O (5) 121.
report of Enamel Division Committee on, (9) 259.
Stoke-on-Trent Assn. of Engineers, Presidential address to members of, (5) 158.
Storage and aging of wet enamel, O (5) 130.
of enamel frit, O (5) 128.

of raw materials used in enamel industry, O (5) 126.
Student branch of the AMERICAN CERAMIC SOCIETY, N. C. Section, report on, (4) 111.
Sweden, solution of the "art in industry" problem, (7) 222.
Symposium, sagger, D (7) 181.
on ceramic education under auspices of the Educational Committee of the AMERICAN CERAMIC SOCIETY, D (11) 342.

Table ware, advantage of good design in, O (7) 181.
Terra cotta, architectural, defects, types of crazing, (2) 59.
soluble salts and their application to, O (10) 341.
Thermal expansion of some boric oxide-containing glasses, (4) 115.
of some soda-lead oxide glasses, (5) 160.
tests, laboratories equipped to make, (5) 157.
Titania, determination of in sand analysis, (7) 213.
Tour, Ceramists', Abroad, (9) 287, (10) 313, (11) 337 (12)365.
Training of pottery craftsman, O (1) 5.
Turner, S., a biography, (photo), (10) 325.
Unit organization of ceramists for research promotion, E (1) 1.
U. S. Board of Tax Appeals allows convention expenses deducted from income statement, (7) 221.

Vitrify (ceramic), term defined, (4) 97.

Water action of some soda-lead oxide glasses, (5) 160.
Wedgwood or Jasper china, term defined, (4) 99.
White ware and related terms, definitions of, by committee of White Ware Division, (4) 97.
term defined, (4) 98.
Working properties of glass, effect of cullet on, and on the working of glass; cause of change in working properties of glass, (4) 113.

X-ray patterns of sillimanite and mullite, note on, (2) 64.

Zirconia, determination of in sand analysis, (7) 213.